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A Review of Research on Incremental Approaches to Strategy

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I. INTRODUCTION

One of the most influential concepts that gripped the attention of management practitioners in the 1990s was reengineering. Reengineering promised drastic cuts in costs along with huge gains in productivity (Hammer 1990). The process for delivering these benefits of this strategic change was simple. To gain quantum leaps in performance, begin with a clean sheet of paper and rationally remake the current organization according to a new set of rules. These rules emerged from the revolutions that had taken place in computer and telecommunications technology (Hammer 1990). The allure of high performance gains from a rationally based approach for strategically redesigning an organization was too great and many organizations jumped on the reengineering bandwagon.

By the middle of the decade, however, it had become clear to managers that there were many unanticipated problems with the reengineering approach (Mickelthwait and Wooldridge 1996). Academic reviews of the process have indicated that as many as 75% of the reengineering efforts failed to yield their promised payoffs (Dennison 1997). By both the nonacademic and the academic observer, the failings of reengineering have been attributed to, among other things, the lack of concern this strategic change process has for the “softer, human side of management” (Mickelthwait and Wooldridge 1996). However, skepticism should have been raised at the first sight of the promise of any rational and “zero-based” approach to strategy. Studies of governmental budgeting processes (Wildavsky 1964) and the problems associated with zero-based budgeting, and emerging critiques of strategic management processes (Methé and Perry 1989; Mintzberg 1990), indicated that synoptic approaches to strategic change and management had to be tried with caution.

Reengineering is a highly visible example of a process developed to handle strategic change in organizations. The management of strategic change involves, at the very least, the survival of an organization, and, at a higher level, the fulfillment of a defined purpose.
or mission. One of the most common approaches to strategic management has been called variously the rational, design, planning, or, more formally, synoptic approach. It follows a well-defined and developed procedure for carrying out strategic functions, as characterized in Table 1. The leader of an organization, using the explicit goals of the organization as a screening device, scans the environment for threats or opportunities. When they are discovered, plans are devised that evaluate alternative methods for exploiting the opportunities or countering the threats. All possible consequences of alternatives are identified and the alternative that maximizes the return to the organization, as measured against its explicit goals, is chosen and implemented.

The major characteristic of the synoptic model of strategic management is that it follows a rational, comprehensive, and formal procedure that moves the organization toward the maximization of its goals, which are typically defined in economic or financial terms. Often a single individual, a CEO or president, is depicted as the central player in the process.

A second general approach to the strategic management process has been called variously the learning, adaptive, or incremental approach. This approach, as summarized in Table 1, addresses the strategy process as one that cannot be accomplished in a rational, straightforward manner. The strategic problem is too complex and ever changing. As a result, the strategic process moves in an incremental or adaptive manner. Decisions are driven by multiple goals advocated by different constituencies who are represented in the strategy process directly or by agents. Thus, satisficing replaces maximization with the various goals acting as constraints in the decision process. Consequently, the strategic process is disjointed or decentralized.

The major characteristic of the incremental approach is that it is a decentralized process of negotiations among constituencies adapting to environmental challenges. The organization is constrained by multiple goals composed of admixtures of economic, political,

<table>
<thead>
<tr>
<th>Strategic dimension</th>
<th>Synoptic</th>
<th>Incremental</th>
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<tr>
<td>Triggering mechanisms</td>
<td>Continuous environmental scanning generates opportunities or problems for strategic action</td>
<td>Problems/performance gaps trigger search for solutions</td>
</tr>
<tr>
<td>Means-ends</td>
<td>First identify the ends of action and then the means to achieve them</td>
<td>Means and ends are not easily distinguished; therefore, analysis of means and ends is limited or appropriate</td>
</tr>
<tr>
<td>Test of a good strategy</td>
<td>The best choice is the one that most closely approximates the desired end</td>
<td>Agreement among participants defines the best choice</td>
</tr>
<tr>
<td>Analytic</td>
<td>All important factors are considered</td>
<td>Analysis is confined to a few alternatives only marginally different from the status quo</td>
</tr>
<tr>
<td>Integrative</td>
<td>Efforts are made to integrate decisions into a unified strategy</td>
<td>Decisions are not integrated but only loosely coupled</td>
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and social considerations. Rather than a single individual leader, coalitions dominate the process.

In a spirited debate Mintzberg (1990; 1991) and Ansoff (1991) outlined many of the important differences between the two approaches, which overlap our presentation in Table 1. Both sides use conceptual arguments along with empirical evidence to support their contentions. Neither side was able to marshal completely convincing evidence, however. Although the argument was initially framed as an either/or debate about the merits of the two approaches, a more careful reading of the entire series combined with a different interpretation of the debate may offer clearer insights. One can recast the real issues being debated as not “either/or” but “when and how” the two approaches could be used. Often what appears as a “rational planning” approach from the perspective of an outside observer can be described as “adaptive learning” by the doer (Goold 1992). These comments are especially meaningful in light of other work showing the influence that rational planning can have on learning in organizations (De Geus 1988) and its use in supporting adaptive strategic change (Langley 1990).

Paralleling the debate described, empirical work has begun to examine the “when and how” questions concerning the two approaches to strategic management. We will be examining some of this work in detail. For now, it should be noted that in comprehensive reviews of strategic organizational change (Barnett and Carroll 1995; Van de Van and Poole 1995) and of strategic decision-making processes (Armstrong 1982; Pearce et al. 1987; Rajagopalan et al. 1993) and in two meta-analyses of the use of formal strategic planning (Schwenk and Shrader 1993; Miller and Cardinal 1994) both adaptive, incremental approaches and formal planning approaches to strategic change management are successful under certain conditions. These conditions relate to both the organization’s environment as well as its internal constitution. Often it appears that the two approaches commingle in a form of dialectic interaction whereby elements of both approaches are in play simultaneously.

This chapter examines the characteristics of incremental approaches to strategic management. Our discussion begins with a review of several research traditions that have provided the intellectual foundations for incremental approaches to strategic management. We then evaluate empirical studies of the strategic decision-making process. Drawing from this research review, we identify and describe components of a contingency framework for selection of appropriate strategic management approaches. We conclude the chapter with a discussion of emerging perspectives on incremental strategic change and needs for further research.

II. RESEARCH TRADITIONS

Incremental approaches to strategic management draw from the wellsprings of several streams of scholarly research. This section summarizes relevant research from three fields: public policy-making, theory of the firm, and evolutionary economics theory.

A. Public Policy-Making

Many researchers concerned with organizational change, especially those studying business organizations, begin their chronology of research on incrementalism with the work of March (1981). Researchers familiar with the public administration tradition are most likely
to cite the research on the incremental process by Lindblom (1959; 1979), who argued that
synoptic or rational-comprehensive methods of decision making were impossible to im-
plement for all but simple problems. The synoptic method is limited by the information de-
mands of complex problems and by decision makers’ capacities. Lindblom’s attack on the
synoptic method drew upon and benefited from a developing criticism of rational decision
making (Simon 1957; March and Simon 1958).

Lindblom articulated an alternative to the synoptic model, termed successive limited
comparisons or incrementalism, as a method for decision making in public administration.
He conceived of incrementalism as building from the current situation, “step-by-step and
by small degrees” (1959:81). Lindblom contended that the successive limited comparison
method was superior to the rational-comprehensive method both as a description of reality
and as a normative model for policy-making.

Braybrooke and Lindblom (1963) later extended Lindblom’s original formulation
and termed it disjointed incrementalism. The distinguishing feature between disjointed in-
crementalism and the original formulation was incorporation of the premise that analytic
work was fragmented among many partisans in policy-making. Braybrooke and Lind-
blom’s advocacy of disjointed incrementalism was grounded in both limitations on human
cognition and the fragmented, partisan structure of market-oriented democracies. They ar-
gued that disjointed incrementalism was the optimal mode of policy-making because it is
consistent with the structural features of polychronies, with their checks and balances,
widespread political participation, and one-person, one-vote rule.

The influence of Lindblom’s formulation of incrementalism as step-by-step forma-
tion of policy is evident many years later in the business management literature with
Quinn’s (1980:58) description of effective strategies in companies:

The most effective strategies of major enterprises tend to emerge step by step from an
interactive process in which the organization probes the future, experiments, and learns
from a series of partial (incremental) commitments rather than through global formulat-
tions of total strategies.

The theme that effective strategies often emerge incrementally from an interactive,
experimenting process is also very prominent in Mintzberg’s (1978; 1987; 1990; 1991) re-
search on strategy.

Incrementalism was first most widely applied by scholars studying public policy-
making, although the broad acceptance of Lindblom’s formulation suggests its applicabil-
ity to government and business. Wildavsky’s (1964) analysis of federal budgeting revealed
that incremental politics was superior to rational models for explaining budgetary change.
Wildavsky noted that reformers often called for budgetary decisions to be made by using a
rational comprehensive means–ends analysis. He showed, however, that lack of agreement
on ends and limited knowledge about the numerous consequences of policies overwhelmed
any attempts by budget officials to be comprehensive. This lack of comprehensiveness
spawned a related criticism that the budget is uncoordinated because the parts are not sys-
tematically related to the whole. Wildavsky counterargued that a single person or organi-
zation does not supply coordination, but coordination does indeed occur through the indi-
vidual activities of participants and mutual adjustments among them.

In a study of the Cuban missile crisis, Graham Allison (1971) demonstrated the plau-
sibility of three different models of decision making for explaining U.S. response. One
model, the rational model, coincides with the synoptic approach to strategy making. The
other two models, the organizational process model and the bureaucratic politics model,
share many features with Lindblom’s (1959) and Braybrooke and Lindblom’s (1963) formulations of incrementalism. Integral to the latter models are ideas such as problematic search, use of standard operating procedures, and action based on self-interest.

### B. Theory of the Firm

Economic theory has been slow in studying strategic decision making because most economists are concerned with markets and efficiency. Much of what is classified as neoclassical economic thought would place the activities of the firm in the synoptic category of strategic decision making. The firm has the goal of profit maximization, which it accomplishes through producing output until the marginal cost of the last unit produced equals the marginal revenue generated by the sale of that unit. In the case of pure competition the firm knows all it needs to know through the pricing mechanism, which clears both the factor input markets and the firm’s own output market. This pricing mechanism is costless to the firms, and the characteristics of the inputs and output are homogeneous and therefore well known to the firm. Efficiency is the sole criterion for determining which firms survive and which do not, and efficiency is determined in the market. Even in the cases of imperfect competition, such as oligopoly and monopoly, the assumptions of profit maximization through equating marginal cost and marginal revenue are not relaxed. The firm can manipulate the price of its output to gain a larger share of profit at the expense of customers, but it still acts synoptically.

Incremental interpretations of the behavior of organizations do exist in the literature about theory of the firm. However, tension also exists in the economics tradition concerning the role of firms and markets (Nelson 1991). This tension arises because markets are seen as the most efficient mechanism for the allocation of resources. Firms exist, however, and some firms consistently outperform other firms. It is from economists’ attempts to reconcile this tension that contributions relevant to our discussion have been produced by economic theories of the firm. We will shortly turn our attention to the question, If markets are the most efficient forms for economic activity, why do firms exist?

Economists have also debated whether the theoretical construct of the firm, as offered in the classical presentation of competitive markets, should be replaced by more realistic constructs (Machlup 1967). Economics has been split between those who would treat the firm as a rational, profit maximizing actor and those who wish to describe its functioning in behavioral terms (Machlup 1967). The former group describe firms as price takers, and as such strategic planning is rational and comprehensive: that is, synoptic. The latter group views the firm as more internally complex and bounded in its rationality. Paralleling the work of economists has been the work of management theorists researching strategic management. Understanding the strategic workings of the firm draws from an amalgam of research traditions (Rumelt et al. 1992). Central among these has been economics, and in particular theories related to the existence and workings of the firm. Consequently, the second question that has spawned research relevant to our discussion concerns the firm as more than a “black box” that maximizes profits.

1. **Neoclassical Theory of the Firm**

As noted, in neoclassical economics the center post around which markets are organized is the pricing system. It is the ability of the pricing system to adjust to changing conditions that gives markets both their efficiency and flexibility, at least in standard neoclassical economic theory. In this model, the firm follows very closely a synoptic approach to planning
its product output. In the case of a perfectly competitive market, a firm has all the relevant information it requires about cost of inputs, type of product, and price. The firm is anthropomorphized in the neoclassical version in that it is viewed as a unified entity, with the single goal of maximizing profits. In order to do so, the firm needs only to determine its output quantity. In markets that are not perfectly competitive, the calculations are more complex, but they are again done by formula: That is, marginal cost equals marginal revenue.

This scenario is appropriate if factor prices or product preferences remain constant and known. If these change, reflecting a degree of environmental turbulence, then the pricing mechanism in the market must adjust. In attempting to understand the genesis of firms in markets, some economic researchers noted that these adjustments in the pricing system do not occur costlessly. This recognition of the costs incurred in adjusting prices also began the movement away from the synoptic model of firm planning.

2. Why Do Firms Exist?

Coase noted that firms arise out of markets as a way to minimize the costs associated with adjustments in the pricing mechanism, especially related to labor (Coase 1937). In describing the forces that catalyze firms out of markets, Coase focused attention on the crucial role that uncertainty and information play in generating costs for the price adjustment mechanism. The firm is a way of internalizing those costs and minimizing them through contracting. Coase’s work was picked up most directly by Oliver Williamson (1975). This view of the firm has been termed transaction cost theory.

In transaction cost theory, the primary concern is the governance mechanism that can be used most efficiently to minimize the cost concerned in using resources. Firms result from the failure of the market to be able to govern the transactions between parties that need resources and those that possess them. This failure is primarily the function of the opportunistic character of bargainers, although other conditions exist. If the market is made up of only a few suppliers of the resources and when the resources are specialized for the buying party, there is uncertainty about the value of the goods or services that are the focus of the transaction. This “information impacted” situation can allow one party to take advantage of the other. In describing the mechanisms at work in the contracting process, Williamson notes that the value orientation of the bargainer, that is, the degree of opportunism, is important in determining the likelihood and character of negotiation (Williamson 1975).

The hierarchical, authority-based structure of firms can minimize the cost of this opportunism. In the case of labor resources, the more opportunistic the individual, the more likely he or she will attempt to negotiate to acquire a larger proportion of an organization’s resources. To counter this possibility Williamson notes that in joining the organization, the individual is asked to surrender to the authority of management. This surrender takes place in the form of a not fully specified long-term contract that allows management to assign the individual to tasks where needed. Williamson also recognized that management operates under conditions of bounded rationality and adjusts to changes in the environment incrementally. The aspect of bounded rationality and bargaining is what makes the transaction cost literature relevant to discussions of incremental strategic decision making. Williamson’s transaction cost concept has also been used to explain not only the emergence of firms out of markets but also development of firms from a simple structure to more complex structures such as multidivisional firms (Williamson 1975; Teece 1980; Ouchi 1980).

Alchian and Demsetz (1972) also examined the question of the existence of firms. In their approach uncertainty and information were also important concepts, but for reasons
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different from Williamson’s model. Economic tasks are rarely accomplished by isolated individuals but are more often performed by teams of individuals. Individuals have skills that are unique. The value of these skills increases when combined with the complementary skills of other team members. Because it is difficult to determine the individual contribution of team members to the accomplishment of a task, teams must be monitored in order to assess the contributions of team members accurately and assign rewards appropriately. This is as much to provide commensurate rewards for contributions as to guard against “shirking.” Shirking is tied to the problem of free-riding and is a form of opportunism.

Again, as in the transaction cost theory of Williamson, there are contracts between individuals and “managers,” designated members of the team who specialize in monitoring the other members of the team. These contracts resemble more spot market contracts than the long-term contracts. The firm becomes a “nexus of contracts.” Concern over authority relations and governance, as seen in Williamson’s transaction cost approach, is not considered, since the market is internalized within the firm. Market efficiency is preserved and this “hierarchical” structure becomes the firm (Alchian and Demsetz 1972). It is with the short-term contracts that must be negotiated that one can argue that the approach outlined by Alchian and Demsetz is an incremental strategic decision-making process.

The transaction cost approach in general, and Williamson’s version in particular, has recently come under attack (Kogut and Zander 1992; Ghosal and Moran 1996). The main point of contention is the reliance on opportunism as the fundamental driver for the emergence of firms. Although this debate is critical to the future of the field of strategic management as a whole, it is beyond the scope of this chapter. In terms of the issue of strategic change, however, these economic theories of the firm lend at least conceptual support to the idea of bargaining among the parties that make up a firm. These approaches also lend conceptual support to incremental adaptation because of either bounded rationality, in Williamson’s version, or the short-term spot market adjustments of Alchian and Demsetz. Empirically, the impact of transaction costs on strategic change has not been directly studied. In a study of trust, which may be seen as the obverse of opportunism, however, greater trust levels were shown to decrease the cost of bargaining (Zaheer et al. 1998). The importance of this finding will be revisited in a later section.

3. What Is Inside the “Black Box”?

In attempting to understand the second question of the nature of the firm, the early work of Simon (1957) and March and Simon (1958) laid much of the foundation for an alternative explanation to the neoclassical version of the firm. The Behavioral Theory of the Firm (Cyert and March 1963) marks an important turning point in the search, because it is the first complete alternative explanation. The driving force in transaction cost economics is efficiency either in minimizing the cost of evaluating rewards (Alchian and Demsetz 1972) or in conducting the transaction (Williamson 1975). These approaches are less concerned with how the firm operates. Not interested in answering the question of why firms exist, Cyert and March were interested in opening up the “black box,” that was the neoclassical economic firm and providing an alternative to this anthropomorphized version. They suggested that the decision-making process in organizations is the key to understanding the inner workings of firms.

As noted, the neoclassical image of the firm is of a monolithic entity operating in an environment characterized by complete information and able to profit-maximize. Decision making in the behavioral theory of the firm is problem directed, using simple rules and heuristics to guide the search for solutions. It is biased toward what the managers currently
know because of bounded rationality. Managers learn from this experience, but this learning is limited. Further, the firm was not a unified entity, but made up of competing interest groups or coalitions. As described by Cyert and March (1963), these coalitions were the result of a negotiation process that induced individuals to join. It is from this bargaining process that the goals of the firm are also formed. Consequently, satisficing replaces maximizing.

The image of the firm that Cyert and March present is one characterized by competing coalitions, run by managers who are at best bounded rational and operating in environments characterized by uncertainty. These processes result in a strategic management system far different from the synoptic model derived from standard neoclassical theory. Goals were negotiated and movement toward those goals was carried out through learning processes that used localized search for solutions and were satisficing. Consequently, adaptation to environmental change is incremental.

As noted, management theorists are also interested in the strategic workings of firms. What is important about the behavioral theory of the firm is that the fundamental assumptions put forward by Cyert and March are taken up in two current research streams in the area of strategic management. The first is the resource-based view of the firm, and the second is an evolutionary approach put forward by Nelson and Winter. We will begin our discussion by looking at the resource-based view of the firm and then move to evolutionary theories in general and the one presented by Nelson and Winter in particular.

We begin by noting that the fundamental concept of the resource-based view is that heterogeneity among firms leads to differences in firm performance (Wernerfelt 1984; Penrose 1959). Explanations offered by researchers for this heterogeneity are that a firm’s acquisition of idiosyncratic resources depends upon its unique history (Barney, 1986; 1991; Collis 1991; Leonard-Barton 1992; Nelson 1991). Either luck or foresight is seen as the primary engine that generates this heterogeneity in the endowments of firms (Barney 1986, 1991; Conner 1991; Mahoney and Pandian 1992; Petraf 1993). Beyond this, little systematic research has gone into why firms differ (Levinthal and Myatt 1994).

Most of the research has instead focused on how firms can maintain their unique capabilities in order to prevent other firms from competing away that advantage (Amit and Schoemaker 1993; Barney 1986; 1991, Dierickx and Cool 1989; Petraf 1993). Because of uncertainty, tacitness, and bounded rationality, it is difficult for other firms to imitate the focal firm (Dierickx and Cool 1989; Lippman and Rumelt 1982). The underlying assumption in all these discussions is that firms and managers act in accord with the image put forward by the behavioral theory of the firm, rather than that of the neoclassical theory. Strategic decision making and strategic change are incremental. However, there is little research on exactly how firms’ strategic decision making processes or actions lead to this heterogeneity among firms (Black and Boal 1994; Mosakowski 1993).

There does exist substantial empirical research on strategic decision-making processes, however. Before examining the conceptual frameworks presented on change and evolution, it would be useful to examine some of the empirical findings concerning strategic decision making in firms. It should be noted that this empirical research was not designed specifically to test any of the theories discussed. However, the findings of this empirical work would lend added weight to the conceptual foundations for either a synoptic or an incremental approach to decision making. Most of the studies to be examined looked at formal planning processes versus informal planning processes in strategic decision making. These studies are being discussed in this section because although the strategic deci-
sions examined in the studies may have been dynamic, the studies themselves used methodologies that were static or comparative static, much as the conceptual frameworks described earlier did.

4. Empirical Research

Early empirical tests of formal versus informal strategic management processes have been the subject of several comprehensive reviews (Hofer 1975; 1976; Vancil 1976; Schendel and Hofer 1979; Armstrong 1982). Much of the importance of this early work is that it set the stage for later studies. This later set of work used the questions raised by earlier researchers to focused its examination of formal decision-making processes on firms and has been extensively reviewed as well (Pearce et al. 1987; Rajagopalan et al. 1993; Schwenk and Shadrer 1993; Miller and Cardinal 1994).

One of the important early empirical findings indicates that the degree of formality (written, specific objectives), comprehensives (in generating and evaluating alternatives), centralization and hierarchical structuring (clear roles, procedures, and lines of communication for implementation and monitoring) in the strategic management process depends on a number of factors. Among these factors are the level of complexity in the organization (Vancil 1976) and in the environment (Armstrong 1982) and the support of different levels of management for planning (Schendel and Hofer 1979). Research has shown that formal planning can improve firm performance, at least as measured in financial terms, but not in all cases (Armstrong 1982). Some organizations have been more successful with a bottom-up approach (Hofer 1976). Further, it was difficult to be comprehensive, at least initially, unless an organization was in a mature industry (Schendel and Hofer 1979).

Most of these early studies were concerned with the degree of formality in the planning processes (Pearce et al. 1987). They focused on the extent to which written plans were used. Positive impacts of formal plans on performance were found by studies on chemical and pharmaceutical industries (Herold 1972), and the Ansoff et al. (1970) study of large U.S. companies in several industries. Other studies reporting positive results for the impact of formal planning on performance were those of Karger and Malik (1975) for large firms in the chemical, pharmaceutical, electrical, and machinery industry and Wood and LaForge (1979) in banks. Thune and House (1970) found mixed results. Positive effects were found in the pharmaceutical, chemical, and machinery industries for formal plans, but not in the food, oil, and steel industries (Thune and House 1970). Rue and Fulmer (1973) also found mixed results. Durable goods firms had a positive effect, whereas nondurable goods firms had no effect and service firms had negative effects (Rue and Fulmer 1973). Among the studies finding no impact were the Grinyer and Norburn (1975) study of U.K. firms, Kallman and Shapiro (1978) study of the motor-freight industry, Robinson and Pearce (1983) study of small banks, and Kudla (1980) study of U.S. Fortune 500 firms.

Given the wide range of methodologies used and definitions of formal planning it is not surprising that the results are inconsistent. These studies did open the way for further studies. These early studies help map out the research terrain. Much of what is still not understood is clearly indicated in the reviews of these early studies (Armstrong 1982; Pearce 1987). This terra incognita centers on three areas. The first is how formal/rational the decision-making process was. Did the organization use all the characteristics of formality, that is, written objectives, comprehensiveness, and centralized monitoring. The second concerns the situational characteristics of formal planning, that is, the importance of the decision and what environmental conditions existed. The most frequently noted environmental
conditions were complexity and uncertainty. The third area concerned whether formal planning improved the firm’s performance just for stockholders, or for other stakeholders as well (Armstrong 1982).

As noted, the more recent studies have taken these areas more or less as a starting point and have attempted to fill in the gaps of our knowledge. Interestingly, given the strong conceptual arguments against rational decision making, the reviews of these studies find that there is a “tenuous” positive relationship between formal planning and firm performance (Rajagopalan et al. 1993; Pearce, Freeman et al. Robinson 1987). This is the case for both large firms (Miller and Cardinal 1994) and small firms (Schwenk and Shrader 1993). However, the results are equivocal, and the studies are not entirely consistent in defining formal/rational planning, environmental conditions, and performance.

Much of this more recent work has examined environmental conditions as a moderator of the relationship between strategic decision making and performance. Most of these studies have focused specifically on the degree of uncertainty or dynamism in the environment and have ignored other environmental conditions and their interactions (Miller and Cardinal, 1994; Schwenk and Shrader 1993; Rajagopalan et al. 1993). In examining the characteristics of formality, most of these studies have focused on comprehensiveness, and the definition of formal/rational decision making has varied from study to study (Pearce et al. 1987; Rajagopalan et al. 1993). In terms of the effects of different types of strategic decision-making processes, financial performance has been the main variable examined (Pearce et al. 1987; Miller and Cardinal 1994).

In order to understand some of the issues covered in the recent studies, we will examine a few in detail. These studies have been selected because they provide a clear contrast in findings concerning the relationship between formal/rational strategic decision making and organization performance. The first set of studies were those done by Fredrickson (1983), Fredrickson and Mitchell (1984), and Fredrickson and Iaquinto (1989). Using a scenario driven methodology, Fredrickson (1983) and Fredrickson and Mitchell (1984) examined the relationship between formality in the decision-making process, as measured by comprehensiveness, and firm performance. The amount of uncertainty or instability in the environment was used as a moderating variable. In stable environments, firms that used more comprehensive decision-making processes were found to perform better than the firms that did not use such processes. In unstable environments, firms that used a less comprehensive decision-making process performed better. A later study of the same firms in the same industries (Fredrickson and Iaquinto 1989) found the same positive effect of comprehensiveness with performance given stable and unstable environments. The rationale offered by these researchers to explain their findings was that the fast pace of change in unstable environments created too much uncertainty for a comprehensive decision-making process to handle. These researchers further argued that the availability of data, the ease in understanding relationships among variables, and the time necessary to complete a comprehensive evaluation of alternatives were supported by the slower pace of change and less uncertainty of a stable environment.

In a second set of studies, Eisenhardt (1989), Bourgeois and Eisenhardt (1988), Judge and Miller (1991), and Priem, Rasheed, and Kotulic (1995) found that firms that used more comprehensive decision-making processes performed better in fast paced environments than those that used less comprehensive decision-making processes. Using an in-depth case study approach, Eisenhardt (1989) and Bourgeois and Eisenhardt (1988) examined the decision-making processes used by firms in an environment characterized by fast paced change in product technology. They found that the successful firms were more likely to use a comprehensive
decision-making process. Managers in these firms sought out more advice and considered more alternatives than did managers in poorer performing firms. Managers in the better performing firms were able to process the larger volumes of information faster by speeding up their cognitive processes. No comparison to low velocity environments was made by Eisenhardt, however. In a similar interview based study, Judge and Miller (1991) did compare low and high velocity environments. They found that in high velocity environments, like those studied by Eisenhardt, these comprehensive and faster decision-making processes were more likely to yield better performance, but that decision speed in low velocity environments did not impact performance. They also found that the experience of the decision makers was important to determining the speed of the decision process. Experienced managers were able to evaluate alternative strategies simultaneously rather than sequentially, thus increasing the speed of the decision-making process. Priem, Rasheed, and Kotulic (1995) found similar results. Using a multirespondent survey methodology a positive relationship was found between high levels of environmental dynamism, that is, “high velocity” industries, and rational decision making. No relationship was seen for firms confronting medium or low levels of dynamism.

The wide divergence in these findings has been explained in terms of interactions between organizational factors, such as power distribution and information processing systems, which were included in Eisenhardt’s studies, but not in those by Fredrickson (Rajagopalan et al. 1993). Part of the difference may also lie in the lack of complete description of the environment. As noted, most studies have examined the impact of uncertainty or dynamism on decision making. However, both complexity and munificence have also been suggested as having an important effect on organizational activities (Dess and Beard 1984).

Both the integrated circuit industry and the personal computer industry, which was the setting for Eisenhardt’s study, are dynamic, but these industries are also munificent, that is, resource abundant, especially in terms of sales growth. In studies of the integrated circuit industry (Méthé 1991a; 1992a) the growth of demand for Dynamic Random Access Memory (DRAM) was found to support both the increase in investment needed to compete and the arrival of new entrants. Also, in a study of the Japanese personal computer industry (Méthé and Miyabe 1999), both the arrivals of new entrants and support for a larger population of firms where found in a more munificent environment. It may be easier to follow a comprehensive approach that requires a manager to choose among a number of growth opportunities. The differences in performance may then be between growth rates, which are fast, faster, or fastest, instead of between surviving or not surviving. Some support for this line of reasoning has been found in a study, that examined not only environmental velocity, but also munificence.

Several studies have examined environmental factors other than dynamism, focusing particularly on munificence (Koberg 1987; Yasai-Ardekani 1989; McArthur and Nystrom 1991; Goll and Rasheed 1997). Each found that environmental munificence had an impact on performance. In an examination of schools, Koberg (1987) found that confronted with scarcity and uncertainty, there was a hierarchy of responses and that scarcity triggered higher level strategic responses (Koberg, 1987). Yasai-Ardekani (1989) found that organizations confronted with a munificent environment adopted an organic structure, with a greater use of professionals and specialists coupled with decentralization of operating decision. He found that scarcity in the environment lead to greater formalization and centralization of decision making. In an examination of the interaction of strategic content and environmental conditions, McArthur and Nystrom (1991) found that dynamism, munificence, and complexity each affected the strategy—performance relationship in a particular manner. An important implication of their findings was that each of the environmental characteris-
tics affected the form of the strategy–performance relationship, not just its strength. Dynamism had both a direct and a moderating effect on performance, whereas uncertainty and munificence had only moderating effects. In an examination of strategic decision-making processes, Goll and Rasheed (1997) found that in environments characterized by high munificence, comprehensive decision making enhanced performance. They also found that in environments characterized by both high dynamism and high munificence, comprehensive decision making enhanced performance, whereas in environments where dynamism was high but munificence was low, there was no relationship between comprehensive decision making and performance.

These last two studies highlight another important aspect of the strategy–performance question, that is, the interaction between strategic process and strategic content (Rajagopalan et al. 1993). There are few studies that have combined both strategic process and content in examining the combined impact on organizational performance. One by Robinson and Pearce (1988) indicated that the two variables did interact. Robinson and Pearce (1988) found that the strategies adopted by firms had an impact on their performance and did the process, formal planning or informal planning. They found also that firms that had adopted the content strategy that most enhanced performance got an extra boost, if they also adopted a formal planning regimen. Firms that used a formal planning regimen but had an inappropriate strategy found that their performance suffered (Robinson and Pearce 1988).

The previous studies all used the firm as the unit of analysis when examining the strategic process, strategic content, or interaction of both process and content. In another attempt to examine the interaction between strategic content and the strategic decision-making process, Sinha (1990) examined the decision as the unit of analysis. Sinha found that the formal planning process was used as a supplement to other types of strategic decision making, depending on the type of decision. Overall, the formal planning process did not contribute to the formulation or implementation of strategic decisions. However, when decisions were considered particularly important or risky, the formal planning process was found to have a strong impact on formulation. These types of decisions included those related to diversification and entrance into global markets, but not those related to decisions concerning technology and new product development (Sinha 1990). In another study of the interaction between formal planning and organization type, Langely (1990) found that different types of organization used formal planning processes in different ways. Three types of organization, a machine bureaucracy, a professional bureaucracy, and an advocacy, were examined. The degree of formality in the planning process and its frequency varied across the three types of organization. Further, the use to which formal planning was put differed as well. In the machine bureaucracy the formal planning process was used most often and for purposes of information gathering, direction, and control rather than for symbolic purposes. In the professional bureaucracy, moderate levels of formal planning and analysis were done for the purposes of information gathering and communication of decisions, rather than as a mechanism of control or direction. In the advocacy, low levels of formal planning frequency and analysis were evident. These were mostly done for communication and symbolic reasons (Langely 1990).

5. Summary

In summary, there is support for both types of strategic–decision making processes. Conceptual and theoretical literature, focusing on bounded rationality of managers and competing coalitions within firms, favors the incremental approach to decision making. Results
from empirical research tend to find support for both styles of decision making, depending on the circumstances surrounding the strategy process under consideration. The most studied circumstance concerns the environment as moderating the relationship between decision-making process and organizational performance. In line with an incremental approach some studies have found that stable environments support rational decision making whereas unstable environments do not. Other studies have found just the opposite, however. Rational decision-making procedures improved performance in dynamic environments, but not in stable ones. Other environmental factors such as munificence and complexity were also shown to impact the decision making–performance relationship and may account for some of the differences concerning environmental dynamism. Studies have also found that other factors such as the experience of managers and the types of organizations are important in determining what type of decision-making process is used and the purposes for which it is used. Most of the studies discussed use a cross-sectional or case approach methodology that is primarily static, but the results point to the dynamic aspects of the decision-making process. It is to these aspects that we now turn our attention.

C. Evolutionary/Change Theories

Closely allied to the preceding discussion has been recent thinking on how markets change over time and the role firms play in that change. Strategic management involves the fit between an organization and its environment. Several scholars have attempted to explain how this fit develops over time (Williamson 1975; Nelson and Winter 1974; Nelson and Winter 1982; Hannan and Freeman 1977). Each has diverged from the standard economic approach to adjustment over time, in terms of ends or the mechanisms for adjustment.

1. Economic Efficiency–Based Adaptive Models

As noted in the previous section, the standard economic model assumes the firm is a passive actor following the dictates of the market. The goal of the firm is profit maximization through the efficient allocation of factors of production. If this occurs under perfect competition, the long-run result will be the same as the short-run result. Efficient firms immediately replace inefficient firms so the basic competitive equation does not change over time. Firms are selected on the basis of factor allocation efficiency. It is this selection process, not firm strategic behavior, that results in the survival of the most efficient firms. Market structure remains the same, and, therefore, the result is that successful action today will likely be successful tomorrow.

This model ignores strategic variables, such as the cumulative effects of managerial experience and organizational learning. Selection occurs at the industry level and is based entirely on allocational efficiency. Even the model of the firm posited by Alchian and Demsetz follows very closely the selection process at work in the neoclassical economic model. The role of bargaining was changed by the substitution of a series of short-term spot contracts for a long-term contract that was incomplete (Demsetz 1988). However, selection is based upon efficiency, and strategic activities other than those that enhance efficiency are counterproductive.

Another adaptive model is based on the concept of transaction costs (Williamson 1975). As noted, transaction costs are the costs related to establishing and carrying out any type of trading activity. The concept has been used to explain not only the emergence of firms out of markets but also the development of firms from a simple structure to more complex structures such as multidivisional firms (Williamson 1975; Teece 1980; Ouchi
Adjustments in the transaction costs–driven model of evolution look at change as gradual, continuous, and based on a weaker form of selection than the neoclassical model. Williamson's recognition of bounded rationality opens his model up to selection based on more efficient as opposed to the most efficient ways of organizing transactions. Organizations or subunits of organizations confronted with environmental change engage in a set of transactions that are selected on the basis of being more efficient than those of their competitors. In time, the number of subunits and the degree of adaptation transform the entire organization. How organizations adjust to sudden, discontinuous change is again not clearly explained by these models.

2. Selection- and Learning-Based Models

Schumpeter argued for a more dynamic approach to the economic efficiency question (Schumpeter 1934). He argued that through technological innovation, a firm is able to acquire monopoly profits, thus driving a market toward concentration. Competitors must go beyond the original innovation in order to survive. These arguments were ignored until recently, when they became more salient because economic environments have grown more complex and uncertain. As a result, the efficacy of doing tomorrow what is done today has been called into question.

Nelson and Winter (1974, 1982) have presented the most comprehensive model of Schumpeter's arguments. Although primarily interested in how industries evolve, in modeling the firm, they chose the behavioral approach suggested by Cyert and March. Through goal-oriented or localized search routines firms adapt to environmental changes. This theory of evolution suggests that learning by firms is possible but is constrained by the bounded rationality of managers and is conducted in an incremental mode. Adaptations are modifications of existing routines or ways of conducting the firm's activities. The environment, through a selection process, acts on these adaptations. The selection process is based on those adaptations in organizational routines or methods of conducting activities that help the firm fit its changed environment. Fit with the environment is interpreted in terms relative to other organizations and their adaptations. The image presented is that of a firm adjusting to continuous, measured technological change in the environment. As noted, learning occurs in this model, but it is the constrained learning of the behavioral firm. Proactive strategic activities and the way a firm confronts discontinuous change although recognized by Nelson and Winter are less well developed in their model.

One attempt to model more directly the effect of discontinuous change in environments on organizations is presented in the population ecology approach (Hannan and Freeman 1977). In that approach the main driver of change in organizations is not adaptive learning, but selection of the most appropriate organizational form to fit the environment. Adaptive learning is difficult because of the existence of structural inertia within established firms. Established organizations become wedded to certain ways of carrying out tasks and have difficulty in adjusting to changes in these core activities. Consequently, established organizations are more likely to be selected against by the environment and disappear (Hannan and Freeman 1984).

Structural inertia means that established firms are slow to change. How then does organizational change come about? Hannan and Freeman recognize that environmental change is not necessarily smooth and continuous, but can be discontinuous. However, because of structural inertia, established firms are slow to meet this discontinuous change. Even when they recognize and attempt to counter such environmental changes they often fail because they are incapable of overcoming structural inertia. Therefore, the appearance
of new or radically altered organization forms that fit the environment will result in the complete extinction of the existing less well fitting organizational forms. Because of the structural inertia that exists in established organizations, few would be able to transform themselves in a revolutionary manner. Revolutionary change occurs at the level of the population, not the single organization, and is driven by the emergence of new organizations, not revolutionary changes in existing organizations.

Hannan and Freeman do not discuss in detail the mechanisms by which this type of new organizational form occurs. They note that these new organizational forms appear with the birth of new entrants and are selected for or against by the environment. If selected for favorably, these new forms come to dominate the population of organizations. As with the Nelson and Winter evolutionary economics approach, the efficacy of strategic action by firms is limited. However, both models do recognize the entrepreneur and entrepreneurial action. This recognition is appropriate to the strategic management issues discussed in this chapter. The role of the entrepreneur, and more importantly entrepreneurial action, is to go beyond the ordinary and routine. Entrepreneurial action leads to new ideas and directions that are often radical in their effects on the organization (Baumol 1968). Through these actions, organizations can meet the challenges presented by discontinuous change in the environment.

Another model of change or evolution does recognize revolutionary change within established organizations (Griner 1972; Miller and Friesen 1980; Tushman and Romanelli 1985; Gersick 1991). Perhaps the most conceptually developed form of the punctuated evolution view is the model put forward by Tushman and Romanelli (1985). In their model, periods of incremental change or convergence are followed by rapid, radical, and fundamental transformations of organizations or reorientations/recreations, which again settle into periods of convergence. Revolutionary changes center on transforming the core of the organization in terms of its value orientation (culture), strategy, power relationships, structure, and control systems (Tushman and Romanelli 1985:179). These changes are most often motivated by drastic changes in the technology, product, or legal/institutional environment shifts in the distribution of power in the organization or periods of sustained low performance (Tushman and Romanelli 1985:205). And because the organization is viewed as a political entity with competing coalitions, revolutionary transformations are most often carried out by replacing the senior executive team that heads the company (Tushman and Romanelli 1985:213). During the periods of convergence, slow incremental change processes are at work. During a reorientation, change is abrupt and major, however. The goal of the reorientation is to bring the organization into a better fit with its environment, in order to improve performance. The change is substantial and moves the organization in a wholly new direction, but nothing is noted about the degree of comprehensiveness or formality of the decision-making process. In this model, then, two types of change can occur at the organization level, one incremental and the other entrepreneurial. However, it is not explicitly stated just how rational either process is.

3. Empirical Evidence

Much has been written on issues related to organizational change and evolution (Van de Ven and Poole 1995; Barnett and Carroll 1995); however, little of it relates strategic decision-making processes directly to organizational change. Further, that empirical work that has examined the strategic decision-making process has done so by using static methodologies such as cross-sectional surveys and interviews or case analysis. Even where this work has attempted to collect data on duration or time effects, it has collected this infor-
mation at one point in time. This is in part a result of the logistical difficulties of carrying out such studies, but also in larger part of the fact that the evolution/change theories say little directly about the rationality of strategic decision-making processes. This is because of their industry or population focus, as opposed to individual firm focus.

When addressing the individual firm, most evolutionary theories use the concepts of bounded rationality (Nelson and Winter 1982; Williamson 1975:91), localized search routines (Nelson and Winter 1982), or structural inertia (Hannan and Freeman 1984) to describe the inner workings of the organization. What all these theories state is that firms primarily undertake incremental changes (Nelson and Winter 1982; Williamson 1975:1985) and are very poor at taking on large or core system changes (Hannan and Freeman 1977; 1984). Since most evolutionary theories use the assumptions present in the behavioral theory of the firm, these theories would also imply that the degree of rationality, in terms of comprehensiveness, and the degree of formality, in terms of well-ordered chains of command and communication channels, are weak. Even within the punctuated evolutionary model, in which the type of change is substantial, the process by which the change is carried out need not adhere to the synoptic model of change. Revolutionary transformations of the type generated during a period of reorientation could be characterized by negotiations between the internal and external coalitions that make up the organization. In other words, the changes may occur in any of these models in an entrepreneurial manner, which can be substantial and rapid, but not necessarily rational and synoptic.

As noted, many studies have examined the various elements of the change theories described (Van de Ven and Poole 1995; Barnett and Carroll 1995) and found support for the major contentions of the theories. It is beyond the scope of this chapter to examine these studies in detail; however, some highlights are provided as these relate to incremental decision making. Structural inertia, localized search, and adaptive change through a combination of learning and selection are consistent with an incremental decision-making regimen.

Structural inertia’s assertion that over time organizations become more inert has received empirical support (Barron et al. 1994). The corollary that change potential decreases with organizational age is also supported in a number of studies (see, for example, Delacroix and Swaminathan 1991; Amburgey et al. 1993; Miller and Cardinal 1994). The impact of organizational size on organizational change received mixed support. Some studies found that large organizations were less likely to change, in line with structural inertia (Delacroix and Swaminathan 1991), but Kelly and Amburgey (1991) found only partial support and Haveman (1993) found that medium-sized organizations were more likely to change.

In testing environmental fit, Methé in a longitudinal study of the integrated circuit industry found that fit between environmental needs and organizational strategy and structure changed over time, with certain types of strategies and structures more successful (Methé 1985; 1991a, 1991b; 1992a; 1992b). Changes in technology for the dynamic random access memory (DRAM) device were found to set up conditions that favored certain firms. Firms that followed strategies that linked them with upstream manufacturers of capital equipment were found to be most successful in introducing the more complicated generations of DRAM devices (Methé 1985; 1992a). The concept of localized search patterns has received support in studies of the semiconductor industry and the choice of alliance partners (Stuart and Podolny; 1996) as a way to move beyond a firm’s current technological capabilities. The impact of adaptive learning and selection processes was studied in the banking industry (Barnett and Hansen 1996; Barnett et al. 1994). Banks that were exposed
to competition and stimulated to learn from the experience were more likely to survive than firms that were insulated from the learning effects of competition (Barnett and Hansen 1996). These results can be interpreted as supporting an incremental decision-making process.

Empirical work has been done on the strategic decision-making process in only a few studies. Eisenhardt's (1989) study of microcomputer firms covered a 2-year period in the life of the firms. She was able to examine in detail the decision-making processes used by these firms. As noted, examining the same type of decision, Eisenhardt found that the more successful firms followed a rational, comprehensive approach to decision making that emphasized speed in making the decisions. This allowed managers of these firms to make more decisions in the same time frame and adjust better to environmental changes. As noted, Fredrickson and Mitchell (1984) and a later study of the same firms in the same industries (Fredrickson and Laquinto 1989) found the same positive effect of comprehensiveness with performance given stable and unstable environments. This set of studies is unique in that it looked at the same firms at two points in time. The finding that strategic decision-making processes are stable over time within organizations is important.

In a case study of a firm in the retailing industry conducted over a 6-year field research period, Johnson (1988) found that although the firm followed an incremental pattern of adjustment, other factors influenced the degree of rationality. He found that the expectation would be that strategic decisions could be explained better in terms of the political processes than analytical procedures; that cognitive maps of managers are better explanations of their perceptions ... than are analysed position statements and evaluative techniques; and that the legitimacy of these cognitive maps is likely to be reinforced through the myths and rituals of the organization. (Johnson 1988:80)

These factors combined with incrementalism to create a phenomenon Johnson termed strategic drift. He found that as managers’ cognitive maps filtered data from the environment and the cultural and political processes of the organization reinforced this filtering, the organization would drift further from an accurate appraisal of the environment. Strategic decisions only appeared to be logically incremental. In reality the cognitive maps of managers guided these decisions.

Other studies that examined organizations that followed an incremental approach to change in the environment indicated that organizations were able to overcome the limitations outlined (Tushman et al. 1986; Lant and Mezias 1990; Millier and Friesen 1980; 1982). Each of these studies has used some aspect of the punctuated evolutionary view, but none has tested that perspective directly. In one of the few studies to test this view directly, Romanelli and Tushman (1994) empirically examined several major tenets of their model. The found that rapid and discontinuous change was used to accomplish a large majority of the organizational transformation in their study. These transformations occurred in the strategy, structure, and power distribution domains of organizations. The other two elements, culture and control systems, were not studied. Small incremental changes in strategy, structure, and power distributions did not accumulate to result in revolutionary transformations. Finally they found that major environmental changes and chief executive officer succession influenced the transformations. Surprisingly, however, performance crisis, that is, long periods of sustained poor performance, did not have an influence on transformations (Romanelli and Tushman 1994). In a study using a computer simulation methodology, Sastry (1997) suggests some reasons for this lack of influence of poor performance in inducing transformations. Using Tushman and Romanelli’s original 1985
work as a base for the underlying behavioral assumptions of her simulation, Sastry had results that indicated that performance was less important than environmental fit (Sastry 1997). She also showed that although revolutionary transformations occurred, they did so only when pacing mechanisms were used. Instead of one major jump, several smaller steps, each followed by a trial period, were used to implement revolutionary changes. In a case study of a high technology start-up, Gersick (1994) also found that managers used similar pacing mechanism to handle major changes.

4. Summary

Several conclusions are consistent with the preceding review of research. First, many of the basic tenets of incrementalism have solid theoretical and, to a lesser extent, empirical support in the studies of evolution and change. Second, research suggests that strategic approaches that approximate the synoptic model can be used successfully, but fuller understanding of the types of rational mechanisms used and the conditions when these can be used successfully is needed. The preceding two conclusions support the view that taking a contingency approach to strategic decision making may be superior to selecting any single approach. Third, an organization’s environment is critical in any consideration of appropriate strategy, and it may be the prime determinant. Environment and other key considerations in strategic management are assessed further in the next section.

III. DETERMINANTS OF STRATEGY PROCESSES

Although organizations have confronted strategic problems since ancient civilizations, it has not been until quite recently that these problems and the processes involved in solving them have been studied formally (Bracker 1980; Hart 1992). Many of the competing definitions of strategy that have been developed during the recent burst of interest have had three elements in common: (1) objectives for the organization, (2) an environment in which the organization must operate, and (3) resources necessary to carry out required operations (Bracker 1980).

In keeping with these directions, we define strategic management as that process that devises the strategy by which an organization can fulfill its mission by bridging the gap between short-term and long-term goals through the use of organizational capabilities in a dynamic environmental context. Hence, organizational mission and short- and long-term goals are the ends to be accomplished by means of a strategy that utilizes organizational capabilities. The discussion that follows explores in detail the components of this definition as a prelude to introducing a contingency framework for selection of strategic management approaches.

A. The Environment

The research of Emery and Trist (1965) and Lawrence and Lorsch (1967) established the contingency approach to organizational design. Perhaps the most relevant set of environmental factors involves an organization’s relationships with other organizations in its environment. Within this set the most important of these relationships involves organizations that control resources and final end-user markets, what Thompson termed the organization’s task environment (Thompson 1967). Porter (1980) has argued that organizations must consider not only the actions of firms producing the same product, but also those of
suppliers, customers, potential entrants, and substitute products. Ansoff (1985) has noted that in addition to input/product/market considerations, organizations must develop strategies for assuring the flow of critical resources for production and must recognize that firm actions will affect nonmarket actors. These nonmarket actors or strategic interest groups can influence a firm’s strategy and must be considered in the strategic management process. This consideration is what Thompson has termed the consensus around the organization’s legitimate domain (Thompson 1967).

We concern ourselves primarily with the task environment of the organization and leave to later a discussion of issues related to domain consensus. The three major dimensions that an organization’s task environment comprises are its munificence, dynamism, and complexity (Dess and Beard 1984). In keeping with Dess and Beard we also define munificence in terms of end-product market growth, but we add another important element, that of munificence in terms of inputs. In terms of dynamism we also agree that the qualitative aspect of events, that is, their predictability or uncertainty, is key (Dess and Beard 1984), but we add in rates of change or velocity as also important. We further agree that dynamism may be multidimensional, including the market for output and technology input aspects of the environment (Dess and Beard 1984). Complexity is seen as the degree of heterogeneity in both inputs and outputs of the organization and the extent of concentration or dispersion in geographic or product markets (Dess and Beard 1984). For purposes of clarity in presentation we will differ from Dess and Beard (1984) in our definition of turbulence. We see changes in the levels of munificence, complexity, and degree of dynamism (uncertainty) as generating higher levels of turbulence. From a strategic perspective, the level of turbulence is critical for the choices organizational participants make and for selection of an appropriate strategic process.

Turbulence increases monotonically as any or all of the three dimensions move from more munificence to less, from less to more variety, and from more to less familiar types of events and slower to faster change in those events. This increase in turbulence can reach a level that overwhelms the organization’s ability to respond. Generally, at this level, the environment is said to be in a chaotic state. Some new thinking regarding turbulence and chaotic states indicates that as these dimensions reach certain levels or the amount of interaction among and between the dimensions increases environmental chaos can take on different forms (Thietart and Forgues, 1995; Loye and Eisler 1987; Polley 1997). Turbulence may increase to a point where the environment is characterized by a possibility of the existence of two different equilibrium states, or a bifurcation state (Polley 1997). If the level of turbulence increases further, a true state of uncertainty or unpredictability about what the next state of the environment will be, that is, a state of mathematical chaos, arises? (Polley 1997). The strategic reactions of an organization to these states should differ. We explore these differences in the application section.

B. Organizational Capabilities

An organization’s capabilities are a function of two sets of components. The first involves an organization’s abilities, what it “can do.” Elements in this set include resources, routines, or procedures that increase and enrich the repertoire of activities that the organization can perform. An example would be developing a distinctive competence in the area of quality control. The second set of components encompasses an organization’s culture, what it “will do.” Elements in this set include the attitudes and other cognitive factors that affect the willingness of organizational members to perform current activities or to learn new
ones. Extending the preceding example, the willingness of organization members to alter inventory, production, and training procedures in order to establish a distinctive competence in quality control requires an organizational culture open to such changes.

Whereas the distinction between organizational abilities and culture is not rigid, organizational structure, routines, people, and financial resources most often fit into the “can do” set. Each of these resources contributes to the organization’s ability to do work (Winter 1987). Structure determines what work will be done and provides a framework for doing work. Routines give guidance on how the work should be carried out. People, using their own skill set, do the work. Financial resources link these because money can be used to acquire other objects necessary to accomplish tasks and to reward people for accomplishing tasks. The abundance of resources (munificence dimension) and the variety needed to accomplish a task (complexity dimension) as well as changes in these variables (dynamism dimension) will affect the level of environmental turbulence an organization encounters.

The second set of factors, the “will do” set, refers to the beliefs, values, and experiences residing within an organization, that is, the organization’s culture or organizational memory (Walsh and Ungson 1991; Casey 1997). An organization’s memory is maintained and transmitted by its members. Key members of coalitions are particularly central to the maintenance and transmission of culture (Cohen 1991). An example of the interaction between individual and organizational level is seen in some recent research on trust (Ring and Van de Ven 1994). As noted earlier of transaction cost economics, the level of trust that exists among coalitions in an organization can have an impact on bargaining costs (Zaheer et al. 1998). Organizational routines (systems) and, to a lesser extent, structure also affect culture. Routines, especially compensation and reward systems, send strong messages as to what is valued. Routines also hold the solution set to problems derived from past experiences. This form of stored response is the base or jumping off point for search routines for problems currently encountered by the organization. The positioning of various departments within a structure, in fact, the very existence of departments, may communicate a particular value or belief orientation.

Combining the two sets, abilities and memory/culture, establishes what an organization can and will do in order to meet the challenges present in its environment. Even the ability to recognize these environmental challenges depends on organizational capabilities. The two sets may complement or conflict with one another. The degree of compatibility between the two sets combined with the level of turbulence in the environment will determine the need for bargaining in strategic management. From the resource-based view of organizations, examined previously, it was noted that this combination of capabilities must be in some way unique or idiosyncratic to the organization and difficult to imitate in order to provide a sustained competitive advantage for the organization.

C. Mission, Goals, Objectives

The determination of the mission, goals, and objectives of an organization, hereafter simply referred to as the goals, is conceived as negotiated among the various stakeholders, both internal and external (Lindblom 1959; Mintzberg 1979). In this sense we agree with the distinction between goals for an organization and goals of an organization put forward by Thompson (1967:127). Both types of goals concern the future domain of task environments that the organization will engage in, but goals for the organization as those future domains held by stakeholders both inside and outside the organization. Goals of the organization are
those future domains held by the dominant coalition of the organization (Thompson 1967:128). Goals may or may not be explicitly stated. It is also possible that goals may never be clearly articulated and may be understood only tacitly (Mintzberg 1973; Quinn 1977). In any case, the central point is that they are the result of negotiation among various stakeholders in the organization (Murray 1978). The result of this negotiation process is a consensus concerning the legitimate activities in which the organization can engage in the environment, that is, the domain consensus (Thompson 1967).

It is important to note that most organizations have multiple goals. Consequently, the organization is engaged in a balancing act among various goals and stakeholders who support them (Ansoff 1985). The relative importance of each goal may change over time. This occurs in response to environmental stimuli and to changes in the needs or relative influence of stakeholders (Bower and Doz 1979). For example, explosive growth in sales resulting from the entrance of new customers (municifence dimension) resulted in the entrance of many new competitors in the personal computer industry in the United States and Japan (Methé and Migabe 1999). The emergence of the Internet has changed the level of complexity and dynamism, in terms of variety, type, and amount of inputs and outputs, for many computer, telecommunication, and retail organizations. Organizations faced with this situation no longer can maximize; they must satisfice among the goals.

D. Strategy

Strategy is the link between the mission, goals, and objectives and the capabilities of the organization. Through combining, augmenting, or jettisoning various capabilities, a strategy is adjusted to meet the changes in goals and objectives. It may be formally stated (planned) or the result of a series of decisions (emergent) that may not be formally or explicitly articulated (Mintzberg 1978; Mintzberg 1987). Strategy mediates between the current domain consensus on task environments and future domains. The resolution of the tension between short term and long term may determine the fate of the organization. Thus, a balance must exist between long term and short term if an organization is to survive (Ansoff 1985).

Goals and strategy are negotiated among the various stakeholders. Beginning with Barnard (1938) it has become increasingly obvious that the CEO of an organization rarely sets the strategy as an individual act. The relatively unidimensional treatment of the entrepreneur in economics has also been recognized as overly simplistic (Baumol 1968). The literature developed around the theory of the firm and the relative strengths of actors within the firm notes the importance of various actors and the negotiations on contracts among them (Coase 1937; Alchian and Demsetz 1972; Williamson 1975; Jensen and Meckling 1976). The influence of internal actors on the strategic management process has also been extensively studied (Cyert and March 1963; Bower and Doz 1979). The importance of these various actors is that they represent groups within the organization who have a stake in the outcomes of different strategic actions. These stakeholders may coalesce around their role in the organization (Thompson 1967), a position of power or value orientation (Dubinskas 1985), or a knowledge base (Sackman 1992).

The ultimate consequence of these groups for the present study is that they can form coalitions to influence or initiate strategic actions. Some of these coalitions may join, gaining enough control over resources to become dominant (Thompson 1967). One of the most important groups within this dominant coalition is the top management team. Work on the influence of the top management team indicates that such teams have an important influ-
ence on organizational performance (Hambrick 1981; Hambrick and Finkelstein 1987; Haleblain and Finkelstein 1993). This work has been extended to include top management as consensus on environmental perceptions (Sutcliffe and Huber 1998) and consensus on strategic decision-making process (Iaquinto and Fredrickson 1997). Strategy, therefore, involves managing the process of internal bargaining. Thus, the strategic process is a highly political process (Pettigrew 1977; Mintzberg and Walters 1985). Goals and strategy will change over time to reflect the status of the various constituencies that affect them.

E. Cognitive Factors

An underlying assumption of the preceding discussion is that strategic management processes are cognitive, that is, driven by personal knowledge, perceptions, and limitations of organizational actors, rather than purely, or even primarily, rational and objective processes. The importance of these cognitive processes has been the subject of much research (Walsh 1995).Because of the complexity and uncertainty inherent in strategic management, individuals and groups engaged in the process operate under conditions of bounded rationality. Steinbruner (1974) argued that under such circumstances existing sets of beliefs are used to simplify decision contexts.

When groups of individuals are involved, as is the case in negotiations among stakeholders, the actors simplify their perceptions so that decisions can take place. Consequently, organizations employ systems of negotiated beliefs to provide a basis for stakeholders to simplify their perceptions in order to make strategic decisions (Steinbruner 1974; Walsh et al. 1988; Isabella 1990).

Belief systems for managers are a result of their experiences as they progress through their careers. Experiences predispose managers to choose particular solutions to strategic problems. Thus, it is not uncommon to find top managers in the same organization approaching the same problem with different solutions (Bower and Doz 1979). The experiences of the top management team may lead them to choose certain resources early in the emergence of a new technology or market that gives them a sustainable competitive condition (Methé et al. 1997; Methé et al. 1998). It is also possible that differences in cognitive maps among the top management teams of organizations may lead them to understand that turbulence in the task environment can be handled as an issue of bifurcation rather than chaos. Such a situation may be occurring in organizations that can handle rapid product innovation (Eisenhardt 1989; Methé 1992a; Iansiti 1995; Methé et al. 1996).

The sum total of the shared beliefs of top management has been defined as an organization’s culture (Lorsch 1986). Although an organization culture is more broadly based than its top management team, top managers probably have the strongest influence in determining culture. Culture is an outcome negotiated among various stakeholders. It is preserved through the socialization process that each new employee undergoes, so it can remain stable. However, since culture is negotiated, it is mutable over time. Culture provides the cognitive filter for reducing complex and uncertain decision situations into ones tractable for bargaining. Consequently, cognitive factors affect organizational capabilities and strategy by constraining and ordering the choice sets confronting top managers as they must decide the direction of the organization’s response to environmental turbulence.

To summarize, the choice of a strategic management approach is dependent upon several primary considerations, including an organization’s environment, its abilities, and its culture. An organization must attempt to match its environment, or it will be overwhelmed (Ashby 1961). Matching is achieved by using the capabilities available to the or-
granization. These capabilities have two components. The first component involves personnel, structure, routines (systems), and financial resources. It includes the skills of individuals, the amount and flexibility of financial resources, and distinctive competencies. The second component is related to the collective values, beliefs, and experiences of an organization’s members, its culture.

IV. INCREMENTAL APPROACHES: A CONTINGENCY PERSPECTIVE

The dimensions upon which strategy is contingent are summarized in Table 2. Arrayed across the top of Table 2 are various approaches to strategic management. The approaches are divided into four types: (1) synoptic, (2) entrepreneurial, (3) logical incremental, and (4) disjointed incremental. With the exception of the synoptic, the strategic management approaches are assumed to contain some or all the elements of incrementalism summarized in Table 1.

The conditions that influence selection of a strategic management approach are represented in the rows in the upper half of Table 2. The culture dimension ranges from strong congruence on beliefs and values to weak congruence on beliefs and values. Very strong congruence on beliefs and values promotes agreement on mission, goals, objectives, and strategy. Weak congruence produces little consensus on mission, goals, objectives, and strategy.

As was noted in the section on the theory of the firm, the abilities necessary to carry out the activities of the organization range from common abilities, and therefore easily replaced or substituted for, through increasing degrees of specialization to unique abilities, and therefore difficult to replace or substitute abilities. In keeping with the resource base view of the firm, this would also include abilities that are unique in combination to an organization, and difficult to imitate.

<table>
<thead>
<tr>
<th>Supporting conditions</th>
<th>Synoptic</th>
<th>Entrepreneurial</th>
<th>Logical incremental</th>
<th>Disjointed incremental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational abilities Cultural congruence</td>
<td>Common</td>
<td>Unique</td>
<td>Specialized to strong</td>
<td>Common</td>
</tr>
<tr>
<td></td>
<td>Very strong</td>
<td></td>
<td>Moderate to weak</td>
<td>Weak</td>
</tr>
<tr>
<td>Environmental turbulence Bargaining characteristics</td>
<td>Low</td>
<td>Strong</td>
<td>Periodic</td>
<td>Chaos</td>
</tr>
<tr>
<td>Frequency of bargaining Intensity</td>
<td>Initial</td>
<td>Episodic</td>
<td>Continuous</td>
<td></td>
</tr>
<tr>
<td>Means/ends relationship</td>
<td>High</td>
<td>Considered sequentially</td>
<td>Moderate Simultaneous means refine ends</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td>Simultaneous means predominant</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The turbulence levels range from low to high. It should be noted that low turbulence is not to be confused with a stable or unchanging environment. Low turbulence is also compatible with change that is predictable. High turbulence connotes large and discontinuous events that are difficult to forecast. In a high turbulence environment complexity is also high. High levels of environmental munificence would generally dampen the impact of high uncertainty and high complexity. However, it is possible that high levels of munificence may increase complexity by inducing organizations to enter the task domain of the focal organization. Also, when operating in a bountiful environment, managers may be lulled into a false sense of mastery over strategic issues. They may not develop the cognitive abilities to handle periods of scarcity.

At high levels of turbulence, two distinct conditions can occur. As noted earlier, the first condition is one of bifurcation, in which two equilibrium states can exist. Organizations can move between these two equilibrium states by importing resources from the environment, something more easily accomplished in a munificent environment. Success in this type of turbulence, however, also requires that the organization be able to balance between these two equilibrium states as long as this bifurcation condition exists in the environment. An organization that must simultaneously support existing products and develop new products because the life cycle of products is short is one example of such a bifurcation condition. In the second state of high turbulence, mathematical chaos exists. In a chaos condition it is not possible to predict the next state of the environment and small variations in an organization’s initial capabilities will affect the next state of the environment. The cognitive maps used by managers are important here in that some managers may perceive chaos, and others using different cognitive maps may be able to find an ordered solution. The emergence of a new technology or industry provides an example in which differing managerial approaches fundamentally affected the outcome for organizations operating in a seemingly chaotic environment (see Methé et al. 1998; Methé et al. 1996).

A. Application of the Contingency Framework

The contingency framework is useful for describing situations that confront organizations and for providing guidance for organizations undergoing change. An organization must be synchronized with the demands of its environment. The range of conditions within which a particular strategic management approach would be most appropriate is identified in the columns in the top half of Table 2. Because an organization has relatively more control over its capabilities than over its environment, adjustments are more easily made in these. Adjusting the culture or the mix of abilities will allow the organization to adapt to its environment.

When an organization is confronted with low environmental turbulence and its capabilities comprise a common ability set and very strong cultural congruence, synoptic planning appears to be the most appropriate strategy approach (Fredrickson and Mitchell 1984; Fredrickson and Laquinto 1989). The initial mission is set and the strategy devised to support it. In terms of the stages of the strategic management process, implementation flows naturally from the formulation stage because agreement on both means and ends exists. The same is also true of evaluation and control of the strategy. The primary emphasis is on maintaining the strategy. The synoptic approach involves the most constraining set of supporting conditions. It is the most specialized of approaches to strategic management and can be used effectively in only a narrow range of circumstances.
For organizations that are confronting levels of environmental turbulence that lead to a bifurcation state and have strong cultural congruence, an entrepreneurial approach to strategic management is appropriate (Mintzberg 1973; Eisenhardt 1989). Although unique abilities generally increase the need for bargaining, strong cultural congruence offsets these effects. High turbulence provides opportunities for an entrepreneurial organization to “leapfrog” other organizations through revolutionary transformations (Tushman and Romanelli 1985; Romanelli and Tushman 1994). Thus, the entrepreneurial approach to strategic management is most appropriate when the environmental turbulence confronting an organization can be characterized as being in a bifurcation state.

In organizations with only a moderate degree of cultural congruence and confronting moderate levels of environmental turbulence, the logical incremental approach may be exhibited (Quinn 1977). Logical incrementalism permits each subsystem of the organization to move forward incrementally according to its own imperatives. This process of adjustment is kept in place through a formal/rational decision-making process that acts as a way of coordinating the incremental adjustments (Langley 1990; Sinha 1990). Enterprise goals and strategy are shaped simultaneously and proactively in the evolution of subsystem strategies. Formal planning is used depending on the type of decision being made (Sinha 1990; Dutton and Duncan 1987). Also, the way formal planning is used may depend on cultural congruence (Langley 1990).

Disjointed incrementalism is characterized by little consensus on either goals or means to achieve them, that is, when cultural congruence is weak. This is most likely to occur when turbulence in the environment is so high as to push the environment into a state of chaos. However, it may be possible that when cultural congruence is weak disjointed incrementalism may result, irrespective of the environmental conditions. With weak cultural congruence, disjointed incrementalism can occur in environments with turbulence levels ranging from low to high. We would suspect, however, that it would most often occur in environments characterized by levels of turbulence so high that these create the conditions of chaos. Although its range of competence is not confined to organizations with weak cultural congruence, disjointed incrementalism is most likely in such organizations.

### B. Bargaining Patterns

Each of the strategic management approaches involves a relatively unique pattern of bargaining over strategic issues. These bargaining patterns are described in the lower half of Table 2. The bargaining patterns can be described in terms of three dimensions: (1) frequency of bargaining, (2) intensity, and (3) means–ends relationship. The frequency of bargaining involves how often the basic mission, goals, and strategy are discussed before agreement is reached or they are adjusted to meet changes in organizational capabilities or environmental turbulence. Frequency of bargaining ranges from bargaining over initial positions, to episodic or periodic bargaining, to continuous bargaining.

Intensity is a measure of the amount of time, resources, and involvement expended by the organization and its stakeholders in bargaining processes. High intensity bargaining involves the entire organization and its stakeholders. It is expected that higher intensity bargaining occurs when cultural congruence is low, especially as the turbulence level rises. Bargaining intensity also should be higher when ability requirements are unique rather than common.

Related to intensity is the means–ends relationship in bargaining. Ends and means will be considered explicitly and sequentially to varying degrees during bargaining. The
value maximizing orientation of the synoptic approach emphasizes sequential consideration of ends and means. At the other extreme, disjointed incrementalism involves simultaneous consideration of ends and means. In our definition of strategic management, the goals and objectives of the organization are considered the ends and the strategy and organizational abilities the means to accomplish the ends.

In synoptic approaches to strategic management, intense bargaining occurs at the outset of the process. Because environmental turbulence is low and cultural congruence is high, further bargaining is not necessary. This does not mean that the environment is not monitored and adjustments are not made to strategy. However, adjustments involve “fine tuning” and the mission and goals remain unchanged. Because of the comprehensive quality of the synoptic approach, the entire organization is mobilized to establish mission and strategy. As noted by many observers (Lindblom 1959; 1979; Mintzberg 1978), this approach attempts to determine, analyze, and plan for all possible contingencies. Consequently, the level of resources devoted to a planning/bargaining session is high.

Bargaining patterns shift within the entrepreneurial approach to strategic management. As ability requirements become unique, the frequency of bargaining increases, even with high cultural congruence. This is most characteristic of organizations in technology intensive environments. As the turbulence level increases, more entrepreneurial activity is required. Bargaining frequency is episodic: That is, it occurs according to no set time schedule but is driven by events. Each bargaining session is designed to meet a particular environment change: As the turbulence level increases, bargaining becomes more frequent. Because of the strong cultural agreement in an entrepreneurial organization and the degree of uncertainty in the environment, bargaining intensity is low. Most members of an entrepreneurial organization agree to follow the entrepreneur’s vision of the environment. This acceptance may often be a matter of faith, since most entrepreneurial organizations operate in environments not always amenable to quantitative analysis.

Bargaining becomes more formal and periodic in logical incrementalism because of moderate levels of cultural congruence and environmental turbulence. As the turbulence level increases, both bargaining frequency and intensity increase. In the logical incremental approach, steps are taken to reduce the intensity at each bargaining session (Quinn 1980). Further, since the number of bargaining sessions is more frequent, the need to discuss major alterations in the mission or strategy is less likely to arise.

Disjointed incrementalism involves continuous bargaining because cultural congruence is weak and environmental turbulence is high. It should be noted that there is an upper bound on bargaining since as the turbulence level increases the situation approaches chaos within the organization. It may be that in such situations so much time and resources are expended on bargaining over strategic issues that nothing is left for other activities and the organization may not survive. Since the number of bargaining sessions is high and they are decentralized throughout the organizational system, bargaining intensity is low at each session, but cumulatively for the entire organization over time, it is high. Changes in the strategic posture of the organization also tend to be at the margin, reducing the need for commitment of large amounts of resources at each session. These marginal commitments can become large when aggregated over the entire bargaining process.

The degree of cultural congruence has the strongest effect on whether means or ends are discussed in the bargaining sessions. Strong congruence would mean that ends are gen-
erally accepted and that bargaining over means is dominant, as in the entrepreneurial approach. Moderate cultural congruence would indicate that ends may sometimes have to be redefined, but most often these are accepted and bargaining over means is predominant, as in the logical incremental approach.

V. CONCLUSIONS

A. Utility of Incremental Approaches

In this chapter, both theoretical and empirical literature has been reviewed in order to assess the merit of incremental approaches to strategic management. The theoretical literature and much of the empirical findings support the notion that incremental approaches have merit when used by organizations because of advantages they afford in coping with typically complex circumstances. Incremental approaches have several features that make them attractive because they (1) permit flexibility in coping with uncertain environmental circumstances, (2) recognize the need to bargain with stakeholders, and (3) bring demands for analysis and integration into line with human and organizational capacities for rational behavior. Synoptic approaches to strategic management agree with our ideal for rational action, but they can be applied successfully in only a narrow range of situations. The trade-off between synoptic and incremental approaches has been cogently articulated by Lindblom (1979:519):

The choice between synopsis and incrementalism—or between synopsis and any form of strategic analysis—is simply between ill-considered, often incompleteness on one hand, and deliberate, designed incompleteness on the other.

Although we have asserted the general utility of incremental approaches, we have simultaneously recognized that rational approaches to strategic decision making are used and have been found useful by a number of empirical studies. A contingency framework for assessing the applicability of the incremental approach and synoptic approach was presented. The framework suggested that choice of an effective strategy is contingent on three broad considerations: organizational abilities, cultural congruence, and environmental turbulence. Under varying conditions of organizational ability, cultural congruence, and environmental turbulence, elements of the synoptic approach can be combined with elements of the incremental approach to yield intermediate solutions to strategic decision making.

B. Future Research

Dialectic modes of inquiry (Sargent and McGrath 1998) might be considered the zeitgeist of the closing years of the twentieth century. However, this type of inquiry can offer useful insights in examining long-standing debates concerning what appear to be polar opposites. One such debate in economics has been the question of whether established or start-up firms are more innovative. Methé, Mitchell, and Swaminathan (1996) found it more useful to recognize the interplay between established and start-up firms in asking the question, What market and technological conditions influence the role that established or start-up firms play in the introduction of new technology? It is in the spirit of this dialectic mode of inquiry that future research should examine incremental and synoptic approaches to strate-
gic management. Our goal should be to understand more fully the conditions under which each approach is used and the conditions under which elements of one approach are used in conjunction with the other.

From the preceding review it is clear that elements of both the synoptic and incremental approaches are at work in most strategic decision-making situations. Managers are constrained by bounded rationality. Managers have experiences, however, that provide mental/cognitive maps that may allow them to consider a much more comprehensive list of alternatives than previously thought possible (Judge and Miller, 1991). Managers are under pressure to conduct strategic decision making in a rational manner (Fredrickson and Laquinta 1989). They must, however, negotiate with other members of their organization to convince them that the strategic direction they wish to take the organization is correct (Langley 1991). They must compete against other organizations whose managers operate under similar constraints (Barnett and Hansen 1996). All this is done in environments that are characterized by varying levels of turbulence.

In order to comprehend strategic decision-making processes better it is necessary that greater emphasis be placed on developing constructs and operational measures. This task will no doubt be difficult given the need for organization-level measures and the “intangibility” of many of the concepts (Mintzberg 1977). In examining the environment, future studies should take into consideration not only the three dimensions of munificence, complexity, and dynamism, but the ways these interact among and between themselves. This may help empirically verify that different types of high level turbulence exist. From their previous experiences some managers may be better at cognitively mapping such high level turbulence (Walsh 1988; Simon 1987; Gersick 1989; 1994).

Greater attention should be paid to the types of organizations, as well as the type of decisions being made. Organizational history, as well as a manager’s career history, does have an impact on the use of cognitive maps and what is considered appropriate decision-making behavior. This will help to shed some light on the uses of rational analytical techniques in various organizational settings, some of which may be done for symbolic or position setting in anticipation of negotiations with other coalitions in an organization. Also the interaction between strategic content, the types of decisions, and strategic process should be considered, especially when evaluating organizational performance. Organizational performance will be affected as much by the appropriateness of the strategy as by the method in which it was formulated and implemented.

Because an organization’s strategy may evolve from many decisions over a period of years, it is recommended that research be focused on how organizations make and combine individual strategic decisions over time. More studies of how strategic decision making evolves within organizations and among a community of organizations are critical to the advancement of our understanding. This approach would permit empirical identification of strategy types, ranging from synoptic to incremental and intermediate hybrids. It would also permit assessment of the contingency model developed here as well as a host of other research issues.

This chapter has reviewed various approaches to strategic management. Its primary focus has been on how incremental approaches differ, not only from the synoptic approach, but also from one another. A review of several research traditions indicates considerable support for the premises underlying incremental approaches to strategic management. We have concluded that the choice of an effective strategic management approach is contingent on environmental and organizational factors and that different approaches involve characteristic patterns of bargaining.
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