

AN EXTENDED TYPOLOGY OF STRATEGIC ORIENTATION AND ITS LINKAGES TO PRODUCT INNOVATIVENESS

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Strategic orientation typologies serve to simplify competitive analysis, help distill strategic options and communicate how individual competitors compete. The authors develop an expanded typology of strategic orientation which includes the four Miles and Snow types (Prospector, Defender, Analyzer and Reactor) plus four new strategic types (Cost Leader, Differentiator, Opportunist and Pretender), then explore relationships between these types and the conduct of new product development. Six hypotheses are developed which link each type to product development success. Analyzers, Differentiators, and Prospectors are predicted to enjoy the most new product success, while Defenders, Cost Leaders and Opportunists rank next, and Reactors and Pretenders rank last.

INTRODUCTION

The development and marketing of new products is an area of significant interest to marketing strategists, since successful product innovation has critical importance to organizational growth and survival (Ansoff 1957; Carpenter and Nakamoto 1989; Lieberman and Montgomery 1988; Mintzberg 1988; Porter 1980). But not all firms achieve equal productivity from their new product development programs.

It has long been held that a firm's innovation effectiveness is moderated by management's choice of goals, strategies for growth, and competitive intensity (Ansoff and Stewart 1967; Barczak 1995; Calantone et al. 1995; Cooper 1984a, 1984b; Ramanujam and Mensch 1985; Utterback 1974; Utterback and Abernathy 1975). One way those moderating effects have been studied is through the examination of a firm's strategic orientation using either Miles and Snow's (1978) strategic types or Porter's (1980; 1985) generic strategies. However, these two approaches to the study of strategic

orientation are incomplete in their coverage of the phenomena, and that incompleteness has undoubtedly contributed to the limited literature on the effects that a firm's strategic orientation type may have on its success at new product innovativeness.

Strategic orientation is useful because it defines the organization's dominant competitive posture and provides a synthesis of the cognitive mental models of its key strategists. Strategic orientation characterizes how a firm sees the competitive process, and subsequently prescribes how the firm will approach the competitive arena.

The purpose of this paper is to examine the state of knowledge regarding strategic orientation types, develop an extended typology based on four organizational competencies, and present several new insights about the likelihood of new product innovativeness success for each strategic type. First we offer a conceptual background, then follow with a description of our proposal for an extended typology, a discussion of product innovativeness related to key organizational competencies, and a description of product innovativeness within strategic type. Finally, conclusions and practical implications drawn from this work are presented.

CONCEPTUAL BACKGROUND

Although marketing strategists are likely to possess an intuitive understanding of strategic orientation types as a result of prior experience, a review of important literature in this area is helpful to lay the groundwork for our proposed extension. Accordingly, the following section provides a brief overview of the literature related to cognitive strategic models and classification taxonomies, then presents a summary and synthesis of the Miles and Snow (1978) and Porter (1980; 1985) approaches.

Cognitive Strategic Models

The literature reflects a compelling interest in strategic models of business competition and suggests that a firm's key strategists form cognitive strategic models in order to make sense of the complex competitive environment in which they must operate (Smircich and Stubbart 1985). Such models may be defined as "internalized cognitive taxonomies of organizational forms that describe organizational similarities and differences" (Porac and Thomas 1990, p.226). However, cognitive strategic models may have a deeper significance to strategists than mere similarities and differences. In addition, these models serve to capture and portray the dominant competitive style of the organization.

Cognitive strategic models are constructed based upon two types of beliefs: the identity of the firm, and its strategic direction (Porac et al. 1989). Statements of identity define the perceived competitive space in which strategists place their business. Similarly, statements of direction express the salient ideas of mission and strategic intent -- a sense of purpose and scope for the organization. The resulting strategic model type and belief structure represent the firm's essential *strategic orientation*.

Models are useful tools for understanding strategy because they help economize on the amount of information that must be processed by strategists as they classify individual organizations into category types. Interorganizational comparisons can then be performed not on the attributes of individual organizations, but on the typical attributes of

categories of organizational forms (Porac and Thomas 1990). This action reduces the complexity of the comparison.

A principal function of a cognitive strategic model is to provide strategists with the knowledge and tools to answer basic questions about organizational identity. Categorizing an organization first requires the selection of a taxonomy, and then the matching of known attributes of the organization with the typical attributes associated with each category. Two such taxonomies, one by Miles and Snow (1978) and one by Porter (1980; 1985), have found wide acceptance in categorizing an organization's strategic orientation. Let's look at each one in turn.

The Strategic Typology of Miles and Snow

The typology of Miles and Snow (1978), hereafter referred to as M&S, enjoys a substantial following (Conant et al. 1990; McDaniel and Kolari 1987; Shortell and Zajac 1990; Slater and Narver 1993 and others). The typology defines four parsimonious types of organizations, and provides intuitively appealing implications for strategic alternatives (Figure 1).

A key assumption of the M&S model is that adaptation is a complex and ongoing process in an organization, requiring three different kinds of top-management decisions. These decisions are defined as entrepreneurial, technological, and administrative, and are conceptualized as naturally interrelated with each other.

The *Entrepreneurial* decision deals with the choice of product-market domain, and answers the questions about which market segment and which product types will be pursued by the firm. The *Technological* decision relates to the choice of approaches for production and distribution of the firm's products and services, and addresses the issue of efficiency. Finally, the *Administrative* decision deals with the issues of structure and process so that uncertainty is reduced while directing and monitoring the firm's day-to-day activities and addressing the firm's future capacity to adapt to environmental change.

FIGURE 1
Characteristics of Miles and
Snow Strategic Types

Defenders are organizations which have narrow product-market domains. Top managers in this type of organization are expert in their organization's limited area of operation but do not tend to search outside of their domains for new opportunities. Instead they devote primary attention to improving the efficiency of their existing operations.

Prospectors are organizations which almost continually search for market opportunities, and they regularly experiment with potential responses to emerging environmental trends. Because of strong concern for product and market innovation, these organizations are not completely efficient.

Analyzers are organizations which operate in two types of product-market domains, one relatively stable, the other changing. In their stable areas, the organizations operate routinely and efficiently through use of formalized structures and processes. In their more turbulent areas, managers watch competitors closely for new ideas, and adopt rapidly those which appear to be the most promising.

Reactors are organizations in which top managers frequently perceive change and uncertainty occurring in their organizational environments but are unable to respond effectively. Because this type of organization lacks a consistent strategy-structure relationship, it seldom makes adjustment of any sort until forced to do so by environmental pressures.

Miles and Snow (1978, p.29)

M&S envisioned that each of these types of decisions leads to distinct and separate competencies, so that a firm can be conceived as having either high or low competency in entrepreneurial, technological efficiency, and administrative skills, depending upon the cumulative effect of decisions taken in the past. M&S created strategic types by dichotomizing each of the above three dimensions and interrelating them (Figure 2).

Despite its wide-spread use, this typology has limited utility for classifying firms in terms of their strategic orientation. Only four strategic types are defined and several important theoretically implied strategic orientations are not included. For instance, while eight different combinations of the dichotomized dimensions are theoretically possible ($2 \times 2 \times 2 = 8$), only

four are named by M&S. Of those named, Prospectors, Defenders, and Analyzers each occupy one possible combination of the three dichotomized competencies, while Reactors encompass four combinations, including all those specified by low administrative skills. An eighth combination, as specified by low entrepreneurial, low efficiency, and high administrative competencies, is not named or considered. This lack of conceptual completeness limits the ability of the typology to apply to real firms and recognize important differences in them.

FIGURE 2
Summary of Miles and Snow Strategic Types

Type	Organizational Competencies		
	Entrepreneurial	Technological	Administrative
Prospector	High	Low	High
Defender	Low	High	High
Analyzer	High	High	High
Reactor	Either	Either	Low

Porter's Generic Strategies

Porter's (1980; 1985) generic strategies offer another perspective on cognitive strategic models of competition. The basic rationale proposed by Porter (1980; 1985), hereafter referred to as "P," provides for only a finite number of ways in which competitive advantage and, hence, superior performance, can be achieved. P identifies four generic strategies, only three of which lead to success. The four strategies are: (1) Cost Leadership, (2) Differentiation, (3) Cost or Differentiation Focus, and (4) Stuck-in-the-Middle. P viewed the last strategy as unsuccessful, because he suggested that it loses in direct competition to the other three "pure" strategies. Yet, anecdotal evidence suggests that firms that follow this strategy do exist, even if only on a short-term basis. Indeed, all those firms which follow M&S's Analyzer type are "stuck-in-the-middle" according to P's definition. P's four strategies serve as additional foundational typologies, and for parallelism, have

been expanded and defined as strategic types with these names: Differentiator, Cost Leader, Stuck-in-the-Middle, Focus Differentiator, and Focus Cost Leader (see Figure 3).

FIGURE 3
Summary of Porter's Generic Strategies

Type	Organizational Competencies		
	Entrepreneurial	Efficiency	Product/Market Scope
Differentiator	High	Low	Broad
Cost Leader	Low	High	Broad
Stuck-in-the-Middle	High	High	Either
Focus Differentiator	High	Low	Narrow
Focus Cost Leader	Low	High	Narrow

A Comparison of Porter and Miles and Snow

P's generic strategies are strikingly similar in formation to the M&S typology. Like M&S, P uses three dimensions to derive his strategic combinations, but unlike M&S, he names five of the eight conceptual possibilities for strategic actions. As detailed in the following, two of his three dimensions are directly analogous to those of M&S. P's three discriminating dimensions are *Differentiation*, *Cost Leadership*, and *Scope*. Differentiation is identical in concept to the entrepreneurial dimension of M&S, and is so labeled in Figure 3. With the Differentiation dimension, the firm responds to any perceived customer needs through innovative products, services or programs that offer a competitive advantage. In M&S's entrepreneurial dimension, competitive advantage is implied.

P's Cost Leadership dimension is analogous to the M&S notion of efficiency and is so labeled in Figure 3. P's third dimension, scope, undertakes an important departure from M&S. With scope, the P analysis distinguishes between broad strategies aimed

at a large number of markets and targeted strategies which are focused on one or several segments. Although M&S envisioned Prospector and Defender types as being targeted rather than generalized in nature, scope was not included as a principal strategic decision or dimension in their typology.

P's scheme defined the Differentiator as low in efficiency while high in entrepreneurial competence; the Cost Leader as high in efficiency while low in entrepreneurial competence; and the Stuck-in-the-Middle as high in both competencies. The scope dimension was used to further divide both Differentiator and Cost Leader categories, creating Focus Differentiators and Focus Cost Leaders. Firms with low competence in both entrepreneurial and efficiency dimensions were not named by P. Again we note that P's Stuck-in-the-Middle and M&S's Analyzer are defined as having high entrepreneurial and high efficiency competencies. M&S noted that Analyzers were particularly effective strategic types even though P indicated that the Stuck-in-the-Middle position meant that the organization would be divided against itself and fail. We suspect that the P interpretation is overly pessimistic. Firms with high administrative competency should be able to manage high competencies on the other dimensions over time.

Although both the M&S and P taxonomies have much to offer, each omits some aspects of strategic orientation. P fails to reflect the administrative competence dimension of M&S, and M&S fail to reflect the scope dimension of P, even though both dimensions are conceptually valuable and intuitively appealing. Walker and Ruekert (1987) attempted to integrate the two typologies by collapsing the four dimensions into two: (1) *product/market development* and (2) *basis of competitive advantage*. This distillation resulted in only three strategic types: (1) Prospectors, (2) Low Cost Defenders, and (3) Differentiated Defenders. However, this result ignores the important distinctions that the four organizational competencies provide.

All four dimensions make significant contributions toward explaining strategy, and a complete typology would incorporate both the scope and administrative

competence dimensions, as well as the two dimensions common to both P and M&S (technological efficiency and entrepreneurial competence). Accordingly, all four dimensions of organizational competency -- entrepreneurial, efficiency, administrative and scope -- should be included in one extended typology which would incorporate and extend the frameworks of both M&S and P. The resulting extended taxonomy promises to provide a more insightful and comprehensive tool with which to evaluate the competitive environment.

THE EXTENDED TYPOLOGY

Just such an extended typology is presented in Figure 4, and includes the M&S-style Defender, Prospector, Analyzer and Reactor types as previously described, plus four new strategic types. The new types include two "refined" strategic types based upon P's generic strategies that are named Cost Leader and Differentiator, and two new "transitional" types that are named Opportunist and Pretender. In addition to the complete extended typology, Figure 4 includes the corresponding foundational M&S "type" and P "generic strategies" for reference. That figure also shows the dimensions of organizational competency for each of the eight strategic types and indicates the components that are missing from the foundational typologies.

Advantages of An Extended Typology

The extended typology has several advantages. First, it builds upon the M&S foundation while keeping the original conceptual definitions for the four M&S types. Second, it integrates P's important generic strategy work by incorporating his two main strategies as strategic types. Third, it completes the typology with the addition of two transitional types. The result is a parsimonious system of eight strategic types that is conceptually complete and intuitively appealing. The following section describes the four additions to the M&S foundation.

The Four New Strategic Types

The proposed Cost Leader strategic type is an organization that is lower in entrepreneurial

competency than other types, but has an efficiency orientation, high administrative competency, and a broad scope organization (see Figure 5). Some units of Motorola exemplify this type, particularly its semiconductor and cellular-phone groups. In cell phones, Motorola uses common technology and the learning curve to drive down its costs and remain competitive (Elstrom 1996). The semiconductor group keeps costs low by producing products, using common technology, that serve a wide variety of applications ranging from its own communications business to processor chips for Apple's PowerPC computers.

Our proposed Differentiator strategic type displays high entrepreneurial, low (technological) efficiency, high administrative, and broad scope competencies. Because of the broad scope of operations in which the differentiation strategy is carried out, this is a different organization than the narrow-scope Prospector of M&S. The Differentiator seizes opportunities for differentiation in every market in which it competes. The 3M Corporation is one of the best examples of the Differentiator, with over 50,000 products on the market. The company has encouraged a high level of innovation to meet a corporate goal that products introduced within the past four years account for 30 percent of the growth of a business in a given year (Vasilash 1995).

The combination of low entrepreneurial skills, low efficiency, high administrative skills, but narrow scope, is conceptually plausible. This type of firm is a temporal Opportunist, a firm that seizes opportunities within a specialized arena, but loses out when a competitor with superior skills vies for the business. Examples might include firms with the administrative savvy to identify new product-market segments but without the entrepreneurial skills to capture sufficient attention and share.

EchoStar Communications is a good example. It entered the satellite TV transmission market in 1996 in competition with DirectTV, owned by Hughes and AT&T, and PrimeStar, managed by Tele-Communications Inc. (TCI). The company demonstrated the administrative skills required to raise the outside capital, but by mid-1996, its lack of

FIGURE 4
A Comparison of Extended and Foundational Strategic Typologies

The Extended Typology	The Four Dimensions of Organizational Competency				The Foundational Typologies	
	Entrepreneurial	Efficiency	Administrative	Scope	Miles & Snow	Porter
Prospector	High	Low	High	Narrow	Prospector	Focus
Defender	Low	High	High	Narrow	Defender	Focus Cost Leader
Analyzer	High	High	High	Either	Analyzer	Stuck-in-the-Middle
Reactor	Low	Low	Low	Either	Reactor	Stuck-in-the-Middle
Cost Leader ¹	Low	High	High	Broad	*	Cost Leader
Differentiator ¹	High	Low	High	Broad	*	Differentiator
Opportunist ¹	Low	Low	High	Either	*	**
Pretender ¹	High	High	Low	Either	Reactor	**

¹ - Newly defined as strategic types

* - Not identified by Miles and Snow (1978)

** - Not identified by Porter (1980, 1985)

FIGURE 5
Characteristics of the Four Additional Strategic Types

Cost Leaders are organizations which have broad product-market domains. Top managers in this type of organization are generalists with a broad understanding of the organization's diverse operations and how linkages among the various divisions and departments can best be managed for maximum synergy. Management tends to stay within the current domain when looking for growth opportunities, and focuses on the relationships among the various organizational resources and capabilities.

Differentiators are organizations which aggressively search out and seize new market opportunities on a broad scale. When capabilities and assets are needed to exploit these opportunities, the organization is creative in acquiring them, frequently going beyond their prior product-market domains. Experimentation is encouraged and the organization experiences constant, dramatic change. Consequently, cost efficiency is sacrificed.

Opportunists are organizations which are severely constrained with respect to capabilities and resources. They behave as "guerrilla marketers," taking strategic initiatives on a limited budget and filling temporary voids left by their more resource-intensive competitors. Opportunists are a transitional form because if they are successful, they will develop enough capabilities and resources to become one of the other strategic types.

Pretenders are organizations that are strategically mis-managed. Capabilities and resources are squandered through ineffective deployment. Top management is confused by external changes in markets or technology, and often reacts unpredictably or inappropriately to these threats. Consequently, the Pretender is also a transitional form. If the firm gets its strategic direction back on track, it will become an Analyzer or other strategic type.

entrepreneurial competency had prevented it from acquiring effective distribution and shelf space in national retail chains. Its deep-pocket competitors announced stepped-up marketing efforts to head off this attack on their markets (Schine 1996).

The unusual combination of high entrepreneurial competency, high efficiency, but low administrative ability, is named a Pretender type. The Pretender's business is in a state of disharmony because of conflicting capabilities, and because the firm's key strategists have not yet figured out how to put the whole picture together to achieve sustained effectiveness. Administrative attention is focused inward, and poor strategic direction and coordination keeps the business from blossoming. Apple Computer Inc. assumed the role of Pretender from the late 1980s to the mid 1990s. The company failed to make needed strategic decisions regarding the licensing of its operating system to effectively compete against DOS-based systems for the business market. And, even though Apple developed a hypertext program similar to the one now used as the basis for World Wide Web browsers like Netscape, it discontinued the product because of an inability to perceive its market potential (Elstrom 1996).

The Opportunist and Pretender are considered as "transitional" types. The Opportunist will utilize its high administrative skills to improve its deficient competency in the entrepreneurial and/or the efficiency dimension and subsequently take on the form of one of the other strategic types such as a Differentiator or a Cost Leader. In the case of EchoStar, the company was acquired by the Rupert Murdoch firm, an Analyzer type, that could supply the missing competencies. The Pretender will either figure out how to develop or otherwise obtain the administrative competency it needs, or begin to lose the entrepreneurial and efficiency strengths that it has. High administrative competency is the glue that holds the firm on course over time. The Opportunist has it and should transition its orientation into another strategic type. To survive, however, we would expect that the Pretender will either achieve administrative competency, be acquired by a firm that has it, or go out of business.

LINKING INNOVATIVENESS AND COMPETENCIES

There are many connections between the organizational competencies outlined previously and new product innovativeness, defined as the ability of those organizations to develop successful new products on an on-going basis. In the following section, we relate the four dimensions of organizational competency to new product development (NPD) activities, resulting in the development of six propositions that summarize expected directional tendencies.

Entrepreneurial Competency

The first dimension of organizational competency is entrepreneurial competency. A firm's entrepreneurial competencies will positively affect several activities in the new product development process. Entrepreneurially competent companies, for example, will have increased effectiveness in the task of idea generation, with subsequent expansion in the number of opportunities available for analysis and development. Entrepreneurial firms, by definition, are well-grounded in the dynamics of market need as a result of effective linkages established with customers and other stakeholders. The continuous domain surveillance of entrepreneurial firms, along with highly-developed systems for evaluation, offer significant potential to gather and process new product ideas. Accordingly, we propose that:

- P₁: Strategic types with high entrepreneurial competencies (Prospector, Analyzer, Differentiator and Pretender) will generate more new product ideas that involve new product-market concepts.

Entrepreneurial competencies also positively affect the abilities of organizations in gaining information through market testing and marketing research. Such testing must ask the right questions of the right audience and requires a firm grounding within the competitive arena, so that inputs from various sources -- competitors, consumers, customers, specifiers, dealers, and other market stakeholders -- are properly evaluated and weighted (Bailetti and

Litva 1995; Shoormans et al. 1995). Strategic types that are low in the entrepreneurial component will have difficulty in managing the linkages between the market and the NPD process. The traditional strategic types that demonstrate high entrepreneurial competencies include the Prospector and the Analyzer, and two of the strategic types in the extended typology that demonstrate these competencies are the Differentiator and the Pretender. Accordingly, we propose that:

- P₂: Strategic types with high entrepreneurial competencies (Prospector, Analyzer, Differentiator and Pretender) will be more effective at evaluating and testing new product concepts against market inputs.

Administrative Competency

Skills within the administrative component of the four strategic competencies will positively affect the internally-focused activities of screening, business analysis, and product development. These activities, taken together, serve to determine which of many opportunities the organization should pursue. The ability to evaluate conflicting competitive and market inputs, and relate everything to the firm's capabilities so that effective strategic decisions may be made, is characteristic of high administrative competence. Businesses in this category achieve an effective integration of both short and long-term aspects of planning, and are superior in selecting appropriate new product options for subsequent market testing. The traditional strategic types demonstrating high administrative competency include the Prospectors, the Defenders, and the Analyzers. Those strategic types from the extended typology with high administrative competencies include the Cost Leader, the Differentiator, and the Opportunist. Accordingly, we propose that:

- P₃: Strategic types with high administrative competencies (Prospector, Defender, Analyzer, Cost Leader, Differentiator, and Opportunist) will tend to identify better new product opportunities for subsequent testing.

High administrative competence also suggests an ability to manage interorganizational networks for innovation. In situations where the product concept requires technologies and resources beyond the capability of the focal firm, it may be necessary to develop networks through joint venture, consortia, or license (Tidd 1995). We expect that the cultivation, creation and on-going management of these networks requires high administrative competence. Accordingly, we propose that:

- P₄: Strategic types with high administrative competencies (Prospector, Defender, Analyzer, Cost Leader, Differentiator, and Opportunist) will be more likely to participate in interorganizational innovation networks.

Efficiency Competency

Efficiency competency has its greatest impact on the degree of product innovativeness found within a firm. The degree of innovativeness of a particular new product may be classified based upon a two-dimensional classification framework which includes core product concepts on one dimension (either current or new technology), and linkages between core product concepts and components on the other dimension (either existing linkages or new ones) (Henderson and Clark 1990). This classification perspective results in an efficient taxonomy comprised of the four classes of innovation -- incremental, modular, architectural, and radical -- described in Figure 6.

Competencies in the efficiency component of strategic orientation tend to restrict the selection of new product production technology to that which is currently known and in use, that is, incremental innovation. Incremental innovation allows high efficiency strategic types to utilize standardized and interchangeable parts thereby optimizing organizational processes for volume and efficiency. Firms with high competency in efficiency, tend not to choose competency-destroying new technologies in production operations (Anderson and Tushman 1990). Production efficiency considerations negatively correlate with innovation success (Abernathy and Wayne 1974).

There are two traditional strategic types that are high in efficiency strategy. They are the Defender and the Analyzer. The expanded typology of strategic types adds the Cost Leader and the Pretender to the types for firms demonstrating efficiency competency. Accordingly, we propose that:

- P₅: Strategic types with high efficiency competencies (Defender, Analyzer, Cost Leader and Pretender) will tend to feature incremental innovation as the principal innovation type.

FIGURE 6
Four Classes of Innovation

Incremental - These are products comprised essentially of *current* technological or market demand core concepts, which are executed by using *current* linkages. Examples include styling changes associated with each new model year in the automobile industry.

Modular - These are products comprised of *new* technologies or new market demand core concepts, which are executed by using *current* linkages. Examples include the addition of pizza as a menu option by McDonald's, and the newer ABS braking systems offered on many new automobiles. Required changes in manufacturing and delivery systems are minimal.

Architectural - These are products comprised of *current* technological or demand core concepts, which are executed by using *new* linkages. One example is the introduction of Pringles by Procter and Gamble as a potato chip snack, which required a completely different manufacturing and delivery concept than previously used in the potato chip industry.

Radical - These are products comprised of *new* technologies or *new* market demand core concepts, which are executed using *new* linkages. For instance, Federal Express created the new concept of an overnight small package delivery service, and also created a new "hub and spokes" logistics concept so as to make overnight delivery a financial reality.

(Henderson and Clark, 1990)

Scope Competency

Finally, scope competencies will have a concomitant scope effect on new product development. Organizations with a broad scope of operations will

tend to expand the number and diversity of product development choices associated with each activity in the development process and vice-a-versa. High scope competencies positively affect the amount of resources that can be devoted to new product development, thus potentially increasing the amount of new product development effort (Ettlie and Rubenstein 1987). The two strategic types that can be expected to demonstrate broad scope competency are both from the expanded typology. They include the Cost Leader and the Differentiator. Accordingly, we propose that:

- P₆: Strategic types with broad product/market scope (Cost Leader and Differentiator) will tend to evaluate a greater number of potential new product innovations.

PRODUCT INNOVATIVENESS WITHIN STRATEGIC TYPE

Given the propositions developed above, we can summarize the product innovativeness characteristics for each of the eight strategic types. In the following discussion we examine the expected product innovativeness success for the four traditional strategic types and then the four added strategic types. A summary of this discussion appears in Figure 7.

The Four Traditional Strategic Types

The firm or SBU operating within the Prospector type can be expected to perform well in new product innovation, although the narrow scope of its operations will cause it to miss some potentially good ideas that may be available outside its focal domain. Due to the strength of its target market focus (scope competency), resulting products will tend to be a balanced mix of the incremental, modular, architectural and radical innovations identified earlier. The Prospector is also likely to take advantage of interorganizational innovation networks as a strategy to stay on the cutting edge of developments. Thus, Prospectors are often market pioneers.

A firm or SBU which is a Defender can be expected to perform less well in new product innovation. Its overall high efficiency bias will unduly constrain the number and type of product concept choices, and the resulting products will tend to be strongly skewed to the incremental type of innovation. The Defender can be expected to rigorously defend its market position with an aggressive price strategy, relying on superior cost efficiencies for a sustainable competitive advantage. Defenders will also seek to participate in interorganizational liaisons when they serve to protect the Defender's position.

If a firm is an Analyzer, it can be expected to excel in new product innovativeness. It follows a flexible, yet balanced, new product development effort that is keyed to business unit needs. Its competencies enhance all the activities of the new product development process, and the resulting products should contain an effective mix of incremental, modular, architectural and radical innovations (see Figure 7). This strategic type attends to competitive moves, and responds effectively where there is an opportunity. Analyzers are likely to be pioneers or "fast seconds" in any new product category.

The Reactor, in contrast, can be expected to perform poorly in almost everything it undertakes, including product innovation. Having sub-par skills on all dimensions, this strategic type's product development effort will tend to be poorly conceived. Firms that exhibit a Reactor strategic profile will most likely generate a small number of new product ideas, inadequately test those ideas, and frequently select sub-optimal candidates for commercialization. The resulting new products will tend to lack success.

The Four New Strategic Types

The Cost Leader is the first of the proposed four new strategic types. It can also be expected to perform poorly in new product innovation. Its lack of entrepreneurial skills reduces the productivity of idea generation and market testing activities. This strategic type will thus entertain fewer ideas and product concepts in its development program, and its overall bias toward cost efficiency will result in incremental type products - and relatively late entry.

Its inherent conservatism, however, enhances its ability to select sure bets for those new product initiatives that it does attempt.

The Differentiator can be expected to perform very well in new product innovation. Its broad operational scope and boundary scanning activities enable it to process effectively a wide spectrum of ideas. Resulting products will tend to be balanced in terms of incremental, modular, architectural and radical innovations. This strategic type will likely be the market pioneer for any new product category.

The Opportunist can be expected to perform poorly in new product innovation. Although its administrative skills will prevent it from making errors of commission, its weakness in entrepreneurial and efficiency skills will increase its chances for errors of omission. Resulting products will include all four new product types in Figure 7, but the total number of new products will be low. Launch cost considerations will drive firm decision-making.

Lastly, the Pretender can also be expected to perform poorly in new product innovativeness. Although possessing entrepreneurial and efficiency skills, this type fails to integrate the two because of low administrative skills. The product development process will tend to lack any real direction, and effectiveness is more attributable to chance than choice. The resulting products are likely to be mismatched to market requirements, and of relatively minor or declining importance.

CONCLUSIONS AND IMPLICATIONS

The literature reviewed and discussed in this paper has suggested the existence of an on-going interest in strategic models as a means of understanding or planning a firm's strategic behavior. Strategists form cognitive strategic models in order to make sense out of the complex competitive environment in which their businesses operate. Such models are based on the perceived identity of the firm and its strategic direction, and provide a sense of purpose and scope for the organization. Thus, the cognitive strategic model ties the firm's inherent belief structure to its strategic orientation.

FIGURE 7
Summary of Innovation Characteristics for Each Strategic Type

<i>Type</i>	<i>Innovation Characteristics</i>
Prospector	Has a well-developed product development function operating in a specialized domain. Generates a high number of new product ideas, including a balanced mix of incremental, modular, architectural and radical types. Participates in interorganizational innovation networks, is effective at testing against market inputs, and has a great ability to pick the winners.
Defender	Has a limited product development function operating in a specialized domain. Features incremental innovation as the principal product innovation type, and within this type, has a well-refined ability to identify the best ideas. Will participate in interorganizational innovation networks to defend established strengths.
Analyzer	Tends to develop a flexible product development function which operates differently for each business unit. Units that are efficiency dominated focus on incremental innovation opportunities. Units that are entrepreneurially oriented focus on the full range of innovation types.
Reactor	Product development functions are poorly developed, generating a small number of ideas, inadequately testing those ideas, and frequently selecting the wrong ideas as candidates for commercialization.
Cost Leader	Has a limited product development function operating on a broad domain. Concentrates on incremental product innovation which fosters efficiency improvement, and has a well-developed ability to select winners.
Differentiator	Has the most comprehensive product development function of any of the eight types. Entertains all manner of innovation ideas from a wide variety of sources. Generates a great number of ideas, tests them effectively, and identifies winners.
Opportunist	Has a skeletal product development effort, relying on outside assistance for most new product activities. Emphasizes opportunities implementable at low cost.
Pretender	Has a comprehensive new product function similar to the Analyzer type, but fails to make effective strategic decisions. Tends to be sloppy, inattentive or overly ambitious with respect to new product activities, and is less effective as a result.

This paper has taken two such models and linked them through an extended typology based on four organizational competencies, creating eight mutually exclusive archetypes. Each of the eight strategic types was examined for linkages with new product innovativeness, and six propositions were developed that state the directional tendencies toward innovativeness that each archetype presents.

This work makes an important contribution by building on the literature base and by exploring linkages between strategic types, dimensional competencies, and new product innovativeness. We have shown that strategic competencies on four basic dimensions differentiate strategic types, and

discriminate certain aspects of product development activities. As a result, we expect different innovation profiles for each strategic type. For instance, Analyzers, Differentiators, and Prospectors will enjoy the most success in new product innovativeness. Reactors and Pretenders will enjoy little success.

Four areas of application for this research can be identified. First, the proposed typology has utility in the setting of objectives for an organization's new product development program. Those objectives should be set against realistic expectations and need to be made in consonance with a firm's strategic type. For instance, objectives for a Cost Leader type

should reflect a higher percentage of incremental or architectural innovations than would a Differentiator type of organization; objectives for an Analyzer type should reflect a higher degree of new product productivity than for a Defender type.

Organizations can determine their dominant strategic type in a number of ways. One approach is for the key strategists to read the capsule descriptions of each type, and make a selection. Another approach is the use of multi-item scales, and several scale measures have been created for measurement of the M&S types, so an extension to include the additional four types we propose is certainly feasible. This extension is a prime area for additional research.

A second area of application of this research is in the understanding of changes in strategic orientation from time horizon to time horizon. As noted by Anderson and Tushman (1990), organizational new product innovativeness fluctuates over time. Is this fluctuation related to changes in strategic orientation? Is there a natural progression, life cycle or evolution of strategic orientation over time? Longitudinal studies that match strategic type and innovativeness over a number of years may explain this phenomenon.

A third area of potential application is in intra-industry stratification research. Porac and Thomas (1990) suggested that strategic group formation has a cognitive basis. Perhaps the proposed eight-point strategic orientation typology can provide a perceptual means for group formation that can more effectively correspond to differences in group performance. This area is worthy of additional theoretical development and empirical testing.

One final application is the investigation of strategic type relationships to other marketing areas within the firm. We might expect that strategic orientation also affects salesforce effectiveness, advertising effectiveness, brand strategies, and product quality level. We suspect that all are fruitful areas for additional study.

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