

Dynamic Competitive Strategy: Towards a Multi-perspective Conceptual Framework

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Introduction

Strategic managers today are exposed to numerous strategic analysis models and approaches, which have surfaced over the past 30 years.¹⁻⁷ Although the breadth of models increased our understanding of the strategic management domain, most development of strategic analysis models has been based on period-specific managerial challenges, and without integration of previous scholarly work, leaving the field fragmented and provincial.⁸⁻¹⁰ We find it surprising that only a few strategic management scholars have explored the possibility that hybrid models—integrating conceptual strategic analysis models from a cross-section of approaches—might enhance our understanding of the strategic environment.¹¹ Such an integrative approach, free of paradigmatic constraints,¹² allows us to bridge the gaps between competing strategic analysis models and

Strategic managers face a myriad of challenges due to the rapid nature of change and increasing complexity of today's competitive environment. Although literature in the field of strategic management has offered many perspectives on how to meet these challenges, managers today would benefit from strategic analysis tools that foster an understanding of the competitive environment from multiple perspectives. This paper provides insights into the synergistic nature of competing strategic analysis perspectives and offers an integrated model that not only synthesises the most prominent perspectives but also captures the dynamic nature of today's competitive environment. © 1999 Elsevier Science Ltd. All rights reserved

*We find it useful to constrain our examination of these synergistic relationships in two ways. First, rather than combining models representative of the entire strategic management process (for example, planning, implementation, etc.), we focus our attention on strategic analysis models. More specifically, we focus on the process of assessing the internal resources of a firm and how those resources fit within the firm's dynamic competitive environment (see Grant). Second, although strategic analysis models encompass a variety of levels of analysis (for example, product, firm, and industry), we propose that by relaxing level-of-analysis constraints and integrating these models, they offer valuable and more comprehensive insights into the success and failure of individual products or product lines. As such, we chose to focus on the development and application of our model in the context of a single product/service or line of similar product/services. This constraint and additional level-of-analysis issues are discussed in greater detail later in this paper.

provides an opportunity to develop a multi-perspective framework in which synergistic relationships between competing strategic analysis models can be explored.^{13*}

Our purpose in writing this paper is threefold. First, by illustrating the interconnectedness of strategic analysis models we hope to foster rich discussion in the strategic management community that will invoke a new research agenda—an agenda aimed at exploring the synergistic relationships inherent in extant strategic analysis models. Second, we intend to clarify for strategic management practitioners the interrelationships between variables in competing strategic analysis models. It has been our observation that firms often become too reliant on a particular strategic analysis model or two and, by



doing so, forego the increased understanding that is possible through examining their firm-specific competencies as well as strategic environment through the lens of other models. Finally, we intend to provide insights that are of value to the teaching of strategic management. Too often we find in our classrooms that students fail to see that conducting strategic analysis using more than one perspective can reveal otherwise overlooked facets of an organisation's or industry's strategic characteristics. The *Multi-perspective and Dynamic Competitive Strategy Model* provides the framework for such learning opportunities.

We begin with a literature review that provides the theoretical backdrop for selecting models representative of various approaches to strategic analysis. Next, four strategic analysis models are selected, described, and then integrated within a dynamic core structure. Finally, the *Multi-perspective and Dynamic Competitive Strategy Model* and its utility are explored theoretically and illustrated through a case study. We conclude this paper with a discussion of the proposed model and its implications for the strategic manager.

The Development of Strategic Analysis Models

Several streams of strategic management approaches appear in the literature from 1950 to present day: budgetary planning and control,⁷ diversification and portfolio planning,² competitor analysis and relative competitive advantage,^{5,6} resource-based view of the firm,^{15,16} core competencies,¹⁷ and the quest to understand industry specific competitive characteristics.^{3,18,19} Each of these approaches reflects the managerial challenges associated with a vastly changing competitive landscape during past four decades.^{20,21} Reviewing the evolution of strategic models during this period provides insights germane to the development of the proposed integrative model.

The increasingly complex organizations of the 1950s challenged managers to regain and/or maintain control.¹⁴ Annual budgetary control procedures provided the vehicle for control,⁷ but external stakeholder pressures spawned new challenges as firms continued to expand during the 1960s.¹⁴ Diversification strategies, capitalizing on scale-efficient production, mass marketing, and world-wide demand, fuelled much of this growth, but left firms

reliant on the accuracy of long-term economic and market forecasts.¹ More specifically, firms sought a method of analysing the growth potential of specific products relative to the firm's own portfolio of products (for example, internal analysis) and the growth potential of specific products relative to competitors' products in the same market segment (that is, external analysis). Portfolio planning models provided one framework for conducting such analyses.²² However, the macroeconomic instability of the 1970s (that is, the oil crises and high interest rate environment) revealed the weaknesses of long-term planning in unstable economic conditions; thereby discrediting portfolio planning models based on long-term forecasts.²³

Consequently, development of strategic analysis models shifted from reliance on long-term planning to focus on (static) competitor analysis models. Porter's *Five Forces Model*,⁶ based on his innovative application of industrial organization economics to strategic management, provided one such strategic analysis tool. The Porter model transformed factors non-existent in previous strategic analysis models, such as firm size and the number of competitors in an industry, into critical variables in the strategic analysis process. The model's primary utility is in providing an analytical foundation to ascertain how competitive advantages are gained through favourably positioning a firm within an attractive industry environment and then leveraging these advantages over rival competitors.^{5,6} Building on this analysis, Porter developed the notion of generic strategies that can be seen as an outflow of strategies to compete based on industrial organisation economics.⁶

Eventually, scholars and practitioners realised that comparative analysis of the strategic advantages of competing firms was sufficient for present-time analysis, but not sufficient for projecting the future success of firms. Scholars and practitioners recognized the need for comparative analysis of firms based on their resources. The resource-based view of the firm that drove strategic analysis model development during the late 1980s and early 1990s is captured by Hamel and Prahalad who argued, "(K)eeping score of existing competitive advantages is not the same as building new advantages. The essence of strategy lies in *creating* tomorrow's competitive advantages faster than competitors can mimic the ones you possess today".²⁴ Thus, accumulating core competencies and long-range, competitive-advantage building resources became the primary concern.^{17,25,26}

Whereas the industrial organization economics approach focuses on the industry as the unit of analysis, the resource-based view of the firm focuses on the individual firm's internal resources and capabilities.* In particular, the resource-based view assumes that firm-specific resource bundles and

*Even though some effort has been made to incorporate the positioning school into the resource-based view of the firm, the research focus of the resource-based view of the firm remains largely on resources and capabilities internal to the firm.

capabilities that are heterogeneous among firms explain inter-firm performance differentials.^{25,28}

However, it was soon recognized that the resource-based view of the firm might not fully consider the entire range of phenomena influencing the success or failure of a firm. D'Aveni's *Hypercompetition Model*³ redirected attention to more macro-competitive characteristics of specific industry environments.^{18,19} D'Aveni builds on the Schumpeterian analysis of competition as a process driven by innovation, postulating that the time intervals between successive waves of "creative destruction" decrease continually, creating "hyper-competitive" environments in which individual firms compete.^{5,29} Sustaining a competitive advantage in these environments is not sufficient to achieve superior firm performance. Instead of relying on current competitive advantages to fuel future growth, D'Aveni contends that existing sources of competitive advantage ought to be disrupted constantly in favour of building new sources of competitive advantage.⁵

Although each strategic analysis model made a significant contribution to the field, each successive model seemingly ignored the contributions of its predecessor. More importantly, the strategic challenges addressed by each strategic analysis model have not subsided. For example, Royal Dutch/Shell continues to successfully utilize long-term strategic planning scenarios; Microsoft's used external environmental and competitor analysis models to redirect its Internet strategy; and Komatsu's ascent as a threat to Caterpillar is credited to Komatsu's application of resource-based strategic analysis models.³⁰

Not only is it important to acknowledge that the "historic" firm challenges might not be as time specific as often assumed but also that extant strategic analysis models do not capture the increasingly dynamic nature of gaining competitive advantage in today's rapidly changing environment. Most strategic models are static and therefore void of any dynamic description. Hence, to alleviate these inadequacies we realise that our integrated model should accurately reflect the dynamic nature of the competitive environment by transforming strategic models from static (that is, models based on a stable competitive environment) to dynamic or organic (that is, models reflecting the rapidly and continuously changing competitive environment). As such, the *Multi-perspective and Dynamic Competitive Strategy Model* not only integrates several existing strategic analysis models but also adds a dynamic dimension to strategic analysis.

A Multiperspective and Dynamic Competitive Strategy Model

Integrating the strategic analysis approaches discussed above requires examining the individual and collective utility of each model as well as understanding the interconnectedness of variables from each model. An internal resource and core competency approach both suggest that firms possess particular sets of skills that are combined to create competitive advantage.⁴ The competitive advantage approach argues that firms strengthen market position by leveraging competitive advantages to develop, produce, and sell the products and/or services that consumers demand.⁵ The relative market position of a company's products and/or services, frequently consisting of a portfolio of products, must then be positioned and managed to in accordance with corporate objectives.² Finally, managers must understand the competitive nature of the industry in which their products compete—that is, the notion that the strategic initiatives of firms competing in a specific industry have a direct influence on the subsequent actions of competitors.³ In summary, a firm's core competencies are the building blocks of competitive advantage, which manifests itself in the portfolio of products and/or services. All of these are embedded in the industry environment. Considering the inter-relatedness of these approaches, an integrative model might provide a more comprehensive perspective. Our discussion now turns to the model selection for such an integrative strategic analysis model.

We based the model selection on three criteria: (1) comprehensive coverage of approaches to strategic analysis; (2) prior model acceptance by both academics and practitioners,*; and (3) each model's fit within the integrative model's framework.³¹ Selecting models with uniform dimensionality made the process of integrating models much more parsimonious. Based on these criteria, the Boston Consulting Group's² (BCG) Growth Share Matrix, Ohmae's⁵ Four Routes to Competitive Advantage, Hamel and Prahalad's⁴ Core Competency Agenda Matrix, and D'Aveni's³ Hypercompetition Model were selected. We acknowledge the presence of many additional strategic analysis models. However, one of the purposes of developing and presenting such a model is to create as parsimonious a model as possible in order to foster understanding of the interconnectedness of approaches to strategic analysis and to fuel scholarly debate in the field.

Boston Consulting Group's Growth Share Matrix

BCG's Growth Share Matrix (Figure 1) represents the portfolio planning approach. The matrix dis-

*For example, strategic analysis model widely cited in scholarly and practitioner literature.

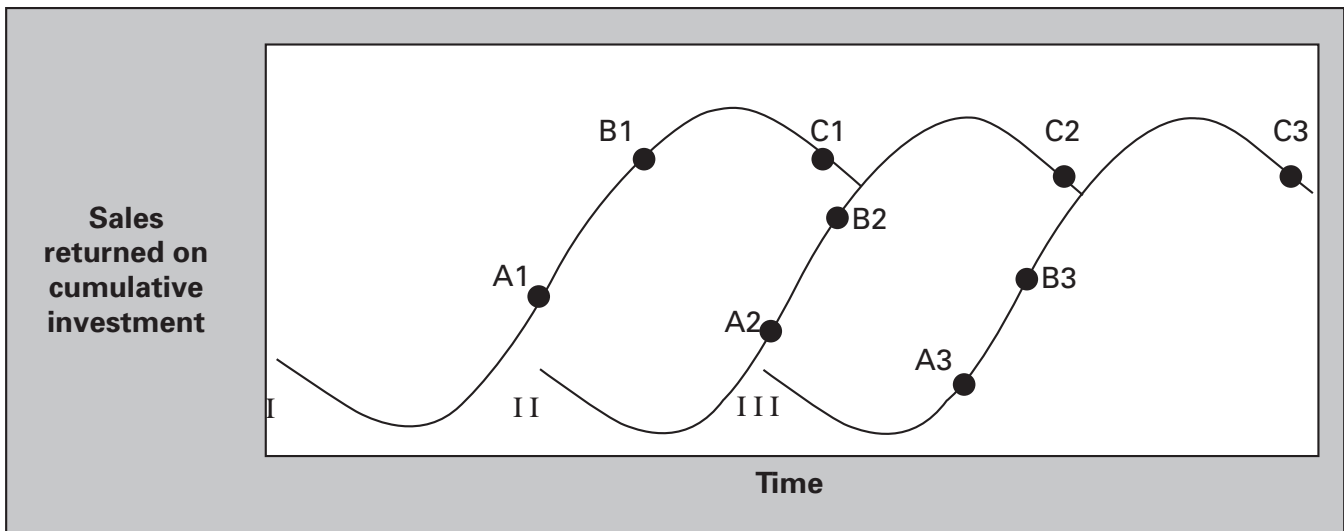


FIG. 1. Handy's sigmoid curves. Source: Handy.²¹

tinguishes product lines on two dimensions: growth of the market in which the product is situated, and the product's market share relative to the share of its next largest competitors. Product lines are classified into one of four categories.

The matrix fosters two types of analyses: internal and internal-external. Internal analysis is conducted by plotting the competitive position of individual products relative to other products in a company's portfolio. External analysis is achieved through plotting the competitive position of a specific product relative to all products (that is from all firms) competing in the same market segment. Moreover, the matrix offers insight into the expected cash flows or drains that each product provides. Thus, the matrix's primary focus is on the current status of a company's product portfolio relative to its main competitors.^{32,33}

Rising star products warrant strategies aimed at holding or increasing market share. For *question mark* products, strategies aimed at increasing market share or harvesting or divesting are recommended. *Dog* products should be harvested, divested, or liquidated. Finally, for *cash cow* products, a company should try to maintain or increase market share and should be using the *cash cow's* profits to fund increased production of *question mark* and *rising star* products. Thus, the firm serves as an internal banker by using retained earnings to fund new ventures.^{32,33}

Hewlett Packard's introduction of the LaserJet printer in 1984 and subsequent releases of more advanced models provides an illustrative example here. The LaserJet was first introduced as a product

that would be characterized as a question mark. Its state of the art technology and corresponding high-quality printing capabilities gave it high potential for market growth. However, released at a retail price of just under \$3500 the product initially did not command a high market share. As the price of the printer dropped its market share increased until it became the leading laser printer on the market, moving the LaserJet into a rising star position in the BCG matrix. Developments in laser printing technology and the release of the LaserJet 3 in 1990 forced the company to lower the price of the machine and recognize that the product had moved into a cash cow position, characterized by low potential market growth but still maintaining a strong relative market share. The cash from the LaserJet had been used to foster new growth in market share for the LaserJet 3 and as the LaserJet 3's price fell its predecessor moved into a dog position. Hewlett Packard continues this process of releasing successor laser printers even today.

Ohmae's Four Basic Routes to Competitive Advantage

The second model, *Ohmae's Four Basic Routes to Strategic Advantage*, captures competitor analysis and competitive advantage approaches.⁵

Ohmae's model emphasizes a firm's market position relative to its competitors. He argues, "What counts ... is *not performance in absolute terms but performance relative to competitors*. A good business strategy, then, is one by which a company can gain significant ground on its competitors at an acceptable cost to itself" (pp. 37-38). Using

business/product offered (old/existing and new/creative) and competing wisely vs avoiding head-on competition as the two axes, the model offers four basic routes to competitive advantage: (1) *Strategic degrees of freedom*; (2) *Key success factors*; (3) *Aggressive initiatives*; and (4) *Relative superiority*.

Strategic degrees of freedom strategies (new/creative products and services, avoiding head-on competition quadrant) focus on the “amount of freedom for strategic moves in the areas surrounding a particular key factor”.⁵ Development of such strategies requires determining the critical axes, or degrees, on which a strategy can be worked out. For example, in the casual dining segment it can be argued that there are at least two degrees: improvements to the service delivery system and improvements to the perceived quality of the product. The crucial element of this strategy is the *objective function*—the variable that the company wishes to maximize (for example, profits, earnings per share, etc.)—, which is influenced by the number of degrees of strategic freedom. Keeping the objective function in mind, firms develop strategies to reach this objective through the deployment of innovations in new markets or in new products while avoiding head-on competition. The rapid rise in the use of the Internet has brought forth numerous examples. Perhaps one of the most significant is how the Internet is changing the way people select and purchase goods, for example, music. Although not all consumers are Web savvy, many consumers are now downloading selected recording, rather than whole albums, and playing them on high tech MP3 players. Record companies view this as expanding the market to include consumers that would not otherwise buy pricey albums in CD or audiocassette formats because these consumers want the freedom to select only the recordings they prefer.

Key success factors strategies (old/existing products and services, competing wisely quadrant) stem from a company’s recognition that capital, human, and time resources are scarce. Implementing this strategy begins with identification of the functional or operational areas critical to success using one of two methods: thoroughly dissecting the industry to identify key segments or studying winners and losers to determine distinguishing characteristics. Either method requires scrutinising the entire vertical chain of business systems to surface key success factors for the particular product segment. Firms use this information to focus resource allocations on functional or operating areas that are decisive for establishing a position of real competitive superiority. John Martin’s reengineering of Taco Bell during the 1990s provides a good example here. Martin recognized that the keys to competing successfully in the quick service restaurant industry were speed of service, quality of food, and a good

price to value relationship. As a result, Martin increased the quality of food and at the same time reduced overall costs by centralizing the processing of key ingredients (that is, lettuce, tomatoes, and ground beef) that allowed him to reduce unit kitchen sizes by 40% and increase the revenue generating customer seating areas. Thus, Taco Bell’s turnaround can be attributed to Martin’s emphasis on the key factors of success in the quick service restaurant industry.

Aggressive initiatives strategies (new/creative products and services, competing wisely) are implemented when the company can no longer expect improvement based solely on cost and operations efficiencies (that is, relative competitive advantages achieved through leveraging key success factors are exhausted). Emerging from this situation requires a radical re-conceptualization of the company and the industry in which it operates. Failing to recognize the need for re-conceptualization can often open the door to new competition. Perhaps the most cited example in the management literature is Southwest Airline’s successful departure from traditional hub and spoke systems that had been unchallenged assumptions of doing business in the airline industry. Also, the retail giant Wal-Mart can be seen as an innovator through re-conceptualization since it was the first to understand the potential of rural locations and leveraged this advantage through a sophisticated IT system to support its logistics.³⁴

Relative superiority strategies (old/existing products avoiding head-on competition) require a systematic comparative analysis of a firm’s products with those offered by competitors. This process determines where relative advantages can be achieved in either price or cost. For example, if a hotel company offers an attractive amenity that is not offered by its competitors but determines that raising room rates will decrease occupancy rates significantly, the company should utilize this point of differentiation in its marketing efforts. This situation commonly confronted by smaller firms who offer a higher quality product or service but cannot afford to wage any type of price war against its larger competitors. An important element of leveraging these points of differentiation, or relative superiority, is that the relative advantage cannot be imitated easily by competitors.

Ohmae⁵ points out, “In each of these four methods (chosen strategies) the principal concern is to avoid doing the same thing, on the same battlefield as the competition ... The aim of these four methods of strategic planning, therefore is to attain a competitive situation in which your company can (1) gain a relative advantage through measures its competitors will find hard to follow, and (2) extend the advantage still further” (pp. 40–41). Thus, the general thrust of this model is determining where

advantages, relative to competitors, can be gained and extended to improve a firm's market position.³

Hamel and Prahalad's Core Competency Agenda Matrix

The third model, *Hamel and Prahalad's Core Competency Agenda Matrix*, captures the internal resources and core competencies approach.^{24,29} The focus of the model centres on obtaining new resources and combining, or reconfiguring, them with resources the organisation already possesses.³⁵

Hence the notion that core competencies, "the collective learning in the organisation, especially how to co-ordinate diverse production skills and integrate multiple streams of technology" (p. 82) are critical to a company's long term survival.¹⁷ Using Existing/New competencies and Existing/New markets as the two axes, the model offers four alternatives for developing and allocating core competencies: (1) *Mega opportunities*, (2) *White spaces*, (3) *Premier plus ten*, and (4) *Fill in the blanks*.

Mega opportunities strategies (developing new core competencies for new markets) involve establishing strategic partnerships with or acquiring businesses that already possess desired competencies. High payoffs associated with this strategy are coupled with high risks due to inexperience with competency and market.⁴ However, the risks inherent in *mega opportunities* are often overlooked due to the long-term benefits that can be realised through competency and market expansion.

White spaces strategies (existing core competencies applied to new markets) represent situations in which a company recognises an opportunity for deploying existing competencies in new markets. For example, GE did not invent the CAT scan, however, it became the market leader since it possessed the requisite complementary assets necessary to succeed in this new market. On the other hand, the innovator EMI was unable to acquire or develop the needed complementary assets to commercialise on the CAT scan, which eventually led to the exit of EMI.³⁶

Premier plus ten strategies (new core competencies deployed in existing markets) involve a simultaneous leveraging of market knowledge and exploration of opportunities that might exist through new core competence development. For example, Marriott leveraged its understanding of the US hotel market in conjunction with developing the competencies needed to compete in all market segments with a portfolio of hotels. In particular, Marriott added new hotel concepts like Fairfield Inn, Courtyard, etc., to expand its original service offerings.

Finally, *fill in the blanks* strategies (existing core competencies in existing markets) realize that by

"... mapping which competencies support which end-product markets, a company can identify opportunities to strengthen its position in a particular product market by importing competencies that may reside elsewhere in the corporation"⁴ (p. 227). For example, Xerox Corporation applied a *fill in the blanks* strategy as it improved its product quality in the 1980's significantly by leveraging existing competencies in a more efficient manner.

D'Aveni's Hypercompetition Model

D'Aveni's *Hypercompetition Model* was developed in response to the increasingly turbulent competitive environment in which firms find themselves today. He argues that the new environment is characterized by rapid erosion of competitive advantages,³⁷ established rules of competition,^{5,8,38,39} industry barriers to entry, and customer loyalty.³ Such an environment requires greater comprehension of the competitive arenas of specific industries. D'Aveni's taxonomy notes four such arenas: (1) *Cost and quality*, (2) *Timing and know-how*, (3) *Strongholds*, and (4) *Deep pockets*.³

In the *cost and quality* arena, product positioning can be a source of strategic advantage. To avoid creation of a commodity market, firms differentiate themselves based on varying levels of quality and price. Undifferentiated levels of quality in an industry can result in price wars because it is the only point of competition. For example, in 1975 Dadril successfully entered the pain reliever market and captured half of Tylenol's sales in test markets. Dadril accomplished this by selling the same-formula pain reliever at a lower price. In response, because quality was not a possible source of differentiation, Tylenol aggressively lowered its prices and began a costly price war. Escalating hypercompetition tends to drive costs down and quality up until the industry approaches the point of maximal value.

One way to stop the succession of price wars is to "leap into a new market or jump to a new level of quality that is so improved that it represents entry into a new marketplace"⁵ (p. 71). *Timing and know-how* is usually the source of such leaps and represents the second arena of competition. First-mover advantages can be realised but require significant investments for establishing a product or service that can often be imitated and improved by competitors. As competitors continue to imitate the first-mover's incremental innovations, the first mover often invests heavily in a leapfrog innovation. For example, Microsoft had ignored the Web browser market until Netscape and others demonstrated the growth and profit potential of this niche software market. Although Netscape possessed a first-mover advantage, Microsoft was able to capture significant market share through its innovations (for example, making its Explorer Web browser highly integrated

within its world dominating Windows operating system). Imitators often possess a competitive advantage compared to first movers,⁴⁰ in particular, when the technological change is sustaining in nature to the imitators' value network.⁴¹ However, as experienced by Microsoft, leapfrog innovations require large investments and are eventually imitated as well. Eventually the cost of leapfrog innovations becomes too high and competition moves toward the third arena.

The third arena is characterized by competitors seeking to gain advantage by creating strategic *strongholds*. Strongholds are geographic regions, industry or product market segment entry barriers that insulate a company from competitive attacks based on price and quality or innovation and imitation. Gallo Winery provides such an example. Its dominant position in the US wine market provides significant leverage over grape growers and distributors—leverage not afforded to its smaller competitors. Such tactics, however, are rarely sustainable in the long run.

After firms have exhausted competitive advantages based on cost and quality, timing and know-how, and after the strongholds have diminished, firms often rely on *deep pockets* to sustain growth and fight off rival attacks. Since competition in this arena is based on the financial resources, it follows that larger firms have a significant advantage. Deep pockets allow larger firms to engage in sustained attacks on smaller competitors. A&P, the supermarket giant, launched an aggressive price war during the early 1970s, forcing many large competitors into the red and smaller competitors into bankruptcy. In response to such attacks, smaller companies have requested government intervention (for example, government investigation of Microsoft's Windows'98 launch with a fully integrated Web browser), establishing strategic alliances with rival firms (for example, recent alliances between airlines), or can step aside and avoid head-on competition with larger firms (for example, Southwest Airlines choice not to provide service to major US airports).

The diversity of strategic analysis models is clear from the discussion above. However, although three models (BCG's, Ohmae's, and D'Aveni's) imply progression, each falls short in capturing the dynamic nature of strategic management.³¹ As such, integrating these strategic analysis models ought to be done in a way that makes each model more dynamic.

Putting Static Matrices in Motion: Exploring an Underlying Dynamic Structure

Since the only constant is change, only a dynamic strategy model will ensure that a manager is able to understand how to create and sustain competitive advantage. This challenge has been taken up in the strategic management literature. For example, Hofer

and Schendel tried to capture the dynamic nature of competition in their product-market evolution matrix.¹¹ Hofer felt that existing portfolio models (for example, BCG's Growth-Share Matrix) failed to offer the tools necessary for analysing new businesses in new markets—a key source of organizational growth. The model Hofer proposed,⁴² and later refined with Schendel,¹¹ purported to overcome these shortcomings by overlaying strategic alternatives on a business-life-cycle model. The resulting model provided strategic alternatives at each stage of a product's life cycle and offered three types of ideal portfolios (growth, profit, or balanced), each corresponding to an organization's objectives, goals, and available resources.¹¹

While Hofer and Schendel's model provides a valuable contribution in terms of integrating competitive position, market attractiveness, and stage in the product-market evolution,⁴³ the model has two shortcomings. First, the model does not provide adequate analytical tools to determine when new products and markets should be explored. Today's multi-product/multi-market organizations "need to consider both the linkages between different products (inter-product line linkages) and the linkages between past and present projects (evolutionary linkages)".⁴⁴ Second, and uncontrollable for Hofer and Schendel, is the fact that their model does not incorporate the various approaches to strategy that have been developed since the late 1970s. Since the proposed model integration in this paper addresses the latter of these two shortcomings (that is, integrating models from four different eras), the primary concern is the former.

Charles Handy's *sigmoid curve* provides an attractive core structure for transforming models from static to dynamic, respectively organic, for two reasons.²¹ First, Handy extends the utility of traditional life cycle models by indicating critical points along the curve—that is, points at which proactive strategic decisions could reduce chances for falling into the decline stage. Previous life cycle models imply the decline stage is inevitable. Second, inherent in the sigmoid curve is the need for organizational renewal. As Handy notes, "(T)he secret to constant growth is to start a new sigmoid curve before the first one peters out".²¹

Figure 4 illustrates the successive curves (I, II, and III), each representing a different product or service, and critical decision points along each curve. Referring to the first curve (I) on the left, Handy places points at B1 and C1 to denote critical decision points for an organization.

At point B1 the company must determine whether it is wise to retain the product associated with the first sigmoid curve. To fuel future growth, therefore, a company must have already begun to develop the next sigmoid curve (II). Handy argues that firms

waiting until point C1 to initiate development of a new sigmoid curve, have waited too long because the resources are scarce. Point A1 is added to emphasize that waiting until point B1 might be too late as well. As such, new sigmoid curve investment must begin at point A1 (I) so that the new sigmoid curve (II) has begun to take off by the time point B1 is reached on the first curve (I). This figure also demonstrates the interconnectedness of product-specific decisions in a firm. Having started business with its initial product, the first sigmoid curve, the company develops an additional product by investing in the second sigmoid curve. At point B1, the returns from the first curve have stabilized while positive results from its second sigmoid curve are realized. At point A2, the second sigmoid curve (II) has taken off and investment in the third curve (III) is initiated, possibly with the resources from harvesting, divesting, or liquidating the first curve at point C1 (I).

Summarizing, managers must become acutely aware of the stage at which their products are at along the sigmoid curve. Only then will managers understand the necessity, especially in today's rapidly changing competitive environment, to begin the development new sigmoid curves (for example, new products and services) that will fuel future growth for their firm. A healthy firm, we argue, will be successfully managing a portfolio of sigmoid curves at different stages of development. Cash flows from sigmoid curves at latter stages of devel-

opment can then be applied to the development of tomorrow's sigmoid curves.

Today's rapidly changing competitive environment makes two additional points germane to the discussion. First, each successive sigmoid curve shortens in length. Second, the time between each curve shortens as well. Thus, it is important to recognize that the decisions required for each successive curve are made at earlier points in a curve's development (that is, note that the distances between curves decreases and the decision points move down on subsequent curves in Figure 1).

Overlaying Strategic Models on the Sigmoid Curve

Before overlaying the selected strategic models, the sigmoid curve is partitioned at points corresponding to stages in the traditional life cycle model, that is introduction, growth, maturity, and decline.⁴⁵ The implied progression of the *Growth Share Matrix*, *Four Basic Routes to Competitive Advantage*, and *Hypercompetition* model taxonomies are used to integrate each model within the stages of the sigmoid curve. The remaining model, Hamel and Prahalad's *Core Competency Agenda Matrix*, requires intuitively fitting its taxonomy on the sigmoid curve since there is no inference as to any set progression. Table 1 provides summary information on the selected strategic models and their corresponding strategies at the four stages of product or service development. The final section provides a

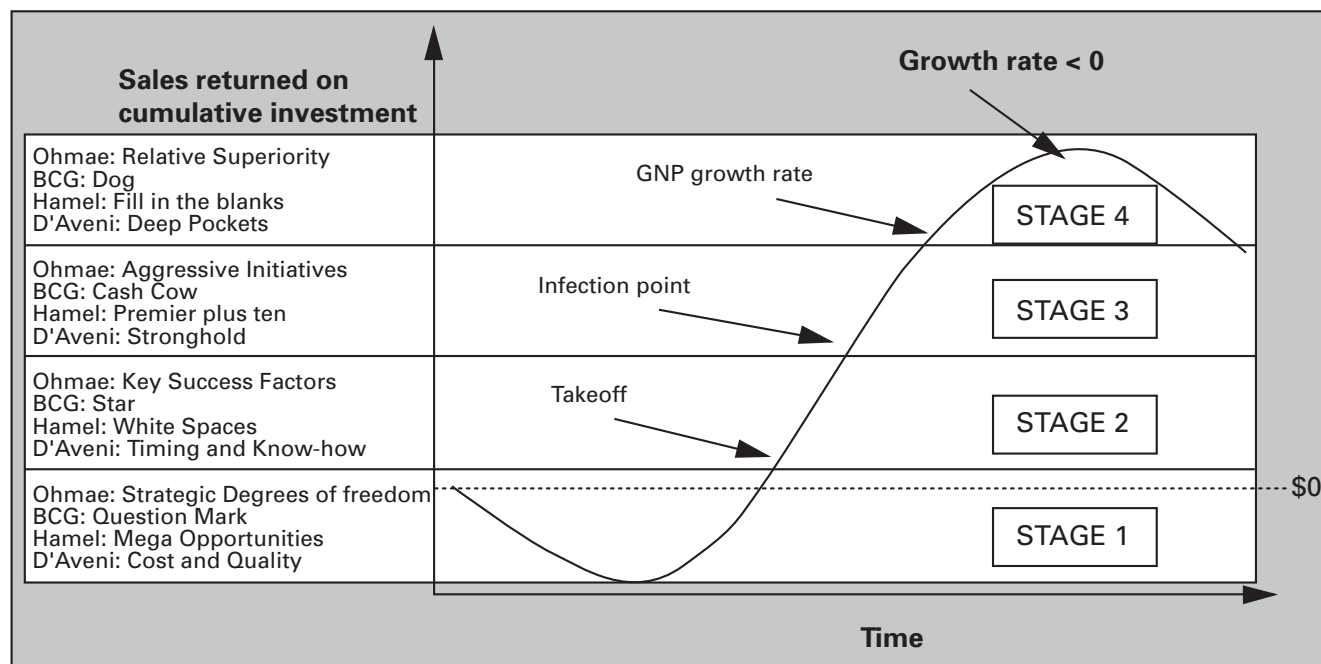


FIG. 2. Multi-perspective and dynamic competitive strategy analysis model. Adapted from: Shay.³¹

TABLE 1. Comparison of the four models^a

MODEL/FOCUS	STAGE ONE: Introduction	STAGE TWO: Growth	STAGE THREE: Maturity	STAGE FOUR: Decline
Ohmae's Four Basic Strategies Focus: Competitive Advantages	Strategy: <i>Strategic Degrees of Freedom</i> Deploy innovations in new markets or development of new products; target markets untouched by competition	Strategy: <i>Key Success Factors</i> Adjust resources to strengthen advantages and competencies to increase market share and profits; don't follow the competition	Strategy: <i>Aggressive Initiatives</i> Unconventional tactics changes the competitive playing field; challenge previously held assumptions	Strategy: <i>Relative Superiority</i> Key success factors challenged by competitors; exploit differences (e.g., distribution or technology advantages)
Boston Consulting Group's Growth Share Matrix Focus: Portfolio Management	Product phase: <i>Question Mark</i> Allocate resources to develop; negative cash flow	Product phase: <i>Star</i> Continue allocating resources; realising profit	Product phase: <i>Cash Cow</i> Minimise resources allocated; use cash flow to fund new curve	Product phase: <i>Dog</i> Divest and reallocate resources to the new curve
Hamel and Prahalad's Core Competency Agenda Matrix Focus: Internal resources and core competencies	Competency focus: <i>Mega Opportunities</i> Acquire competencies through acquisitions/partner-ships which provide core for the future	Competency focus: <i>White Spaces</i> Imagine new opportunities for applying and extending existing competencies into new products/services	Competency focus: <i>Premier Plus Ten</i> Determine which core competencies to build for the future to enhance market position for existing products/services; determine competencies reaching obsolescence	Competency focus: <i>Fill in the Blanks</i> Determine opportunities for utilising competencies that may exist elsewhere in the organisation; import and apply these competencies
D'Aveni's Hypercompetition Model Focus: Industry environment characteristics	Compete based on: <i>Price and Quality</i> Number of competitors increases, firms are forced to offer highest value for consumers	Compete based on: <i>Timing and Know-How</i> First-mover advantage; as competitors realise these opportunities these advantages dissipate	Compete based on: <i>Stronghold</i> Strongholds easily disrupted as entry barriers fall; rivalry begins to shift toward deep pockets	Compete based on: <i>Deep Pockets</i> Few competitors remain but smaller firms using strategic alliances, acquisition, niching, etc. can disrupt competition

^aAdapted from: Ohmae,⁵ Boston Consulting Group,² Hamel and Prahalad,⁴ and D'Aveni.³

graphical representation and discussion of the integrated model.

The Integrated Model

Our discussion proceeds in two parts: (1) a description of the integrated model and (2) an application of the model. The graphical depiction of the model illustrated above provides further explanation of the model and its utility. As discussed earlier, the focal unit of analysis is a particular product or service as a manifestation of a firm's competitive advantage; heretofore referred to as a sigmoid curve. During Stage 1 (Figure 2) a company invests heavily in the new sigmoid curve and experiences a negative return on cumulative investment.

The sigmoid curve, especially for start-up firms, often is characterized by offering a new product or service that leverages a new core competency (Hamel and Prahalad's *mega opportunity*). Firms use new core competencies to deploy the innovative sigmoid curve in markets untouched by competitors, thereby reflective of Ohmae's *strategic degrees of freedom*. The market in which the sigmoid curve competes presumably has high growth potential (that is, otherwise a company would not invest heavily) but the company initially has a low relative market share (BCG's *question mark*). Competition in Stage 1 is based on D'Aveni's *cost and quality* as firms seek to gain scale economies and product standardization.

Eventually, the sigmoid curve reaches a point at which sales begin to increase rapidly (see 'Takeoff' in Figure 2) as the curve enters Stage 2. During this stage firms realize opportunities for applying existing core competencies into new markets (Hamel and Prahalad's *white spaces*)—expansion into international markets is often representative of these efforts. As competition increases firms recognize the need for focusing resources more precisely in order to sustain competitive advantages. This focus involves Ohmae's *key success factors* strategy; firms compete with existing products but do so wisely. In addition, firms now realise that the ability to develop incremental innovations and to determine the appropriate time for their introduction is critical (D'Aveni's *timing and know-how*). By this time the sigmoid curve has established a high relative market share in the still growing market (BCG's *rising star*). Referring back to Figure 1, the company has reached decision point A1. Hence, the company must begin investing the profits from the first sigmoid curve into a second sigmoid curve if long-term growth is to be sustained.

Subsequently, the company experiences an inflection point on the first sigmoid curve, which is characterized by a stabilization or decrease in the growth rate (Figure 2) and signals that the curve has entered the third stage. Although the curve enjoys a high relative market share position, the growth rate of the particular market is no longer strong (BCG's *cash cow*). Firms realize that the core competencies on which the first curve were built are becoming obsolete, providing the impetus for exploration of what core competencies will be needed to compete in markets of the future (Hamel and Prahalad's *premier plus ten*). However, some firms realize that unconventional tactics can be implemented to change the rules of the game (Ohmae's *aggressive initiatives*). Such tactics can often breathe new life into the sigmoid curve or at least secure a healthy *cash cow* position from which to extract financial resources to develop new sigmoid curves. Competition at this stage is primarily based on D'Aveni's *strongholds* as the market has experienced a shakeout and few firms with few sigmoid curves remain competitive. Again, referring back to Figure 1, firms in this stage have reached decision point B1. Hopefully, the second sigmoid curve has taken root so as to provide the next wave of growth for the company. With the value of the first sigmoid curve relatively low at this point, the company must determine whether it is advantageous to hold, divest, or reinvest (that is, breath new life into through innovative enhancements) in the curve because it will soon become a drain on financial resources.

Sigmoid curve growth rates comparable to the GNP growth rates signal the beginning of Stage 4. The worst scenario in this case is when the sigmoid curve is not only in a low growth market but also possesses low relative market share (BCG's *dog*). During this stage firms often invoke Ohmae's *relative superiority* strategies through exploiting differentiation points because previously held key success factors have been challenged and/or overthrown by rival competitors. Exploitation of these differentiation points can include examining possibilities that the core competencies used for the first curve may be deployed elsewhere in the organization (Hamel and Prahalad's *fill in the blanks*). However, smaller firms must realise the strategic disadvantage at which they are at because larger rivals have *deep pockets*, which can be used to mount significant and sustained attacks aimed at minimising smaller company gains. Having reached decision point C1 (Figure 1) by the end of this stage, a company must begin to divest or liquidate the first curve.

*Applying the Model to the Outback Steakhouse Restaurant Chain**

The external validity of the proposed integrated strategy analysis model is enhanced by demonstrat-

*The case example on Outback Steakhouse is based on Shay and a paper presented at the 1998 Western Academy of Management Meetings in Portland, Oregon. Feedback from these two papers was used to modify the model.

ing its value through a case study. We chose to apply the model to Outback Steakhouse, a US chain restaurant operation. The reasoning behind our decision to use Outback Steakhouse is two-fold. First, the company has gone through all four stages of the model and therefore provides insights into the inter-related nature of strategic perspectives throughout a product or services development. Second, competition in the chain restaurant industry is intense. As a result, following the development of a firm competing in this industry and their strategic reactions to changing market conditions provides many rich examples.

Stage one: introduction. In 1987, Chris Sullivan, Robert Basham, and Timothy Gannon capitalized on America's infatuation with anything Australian by creating an Australian-theme steakhouse. The founders had a history of success in prior food and beverage concepts, such as Steak & Ale, Bennigan's, and Sunstate Restaurant Corporation. Considering D'Aveni's model, Outback's early success could be attributed to addressing price and quality issues. Outback's commitment to provide high-quality products at a relatively low price resulted in a ratio of food cost to sale of 40%—a percentage considered relatively high in this market segment. The disadvantage of having such high food costs was overcome by selecting locations outside of major cities. These locations reduced operating costs, brought their services closer to the consumer, and resulted in a 33% net operating profit—the highest return in the chain restaurant industry.

By locating their restaurants close to consumers' homes, rather than forcing patrons to return to the city for dinner, the Outback founders recognized a *mega opportunity* (Hamel and Prahalad). Moreover, this tactic was a perfect fit for a chain focused exclusively on serving dinner (forgoing the lunch business). This opened new markets and avoided head-on competition, putting Outback into the quadrant identified by Ohmae as *strategic degrees of freedom* (because it had a new product, a new concept, and limited initial competition). As with any start-up operation, Outback initially had low market share, but the hour long lines consistently forming outside Outback units indicated potential for high growth. These characteristics would place the business as a *question mark*, according to the BCG matrix, with high potential for moving into the *star* category.

Stage two: growth. The speed at which Outback's first three units captured strong shares in their local markets made the founders realise the chain's potentially attractive future for growing beyond the original plans to limit the chain's size to three units. The company's position in the rapidly

growing casual-theme dining market possessed the characteristics of a *star*, according to the BCG matrix. D'Aveni's model suggested that two key elements were necessary for firm success in this stage of development: *timing and know-how*. The ability of existing units to continue to draw large crowds indicated that America's infatuation with the Australian-theme concept was not a fad. In addition, the growth both in number of units and popularity of theme restaurants (for example, Hard Rock Café) continued at a rapid pace with no indication of market saturation. Both of these market characteristics indicated that the *timing* was right for expansion of Outback. The founders' successful track record of growing other chains (for example, Steak & Ale and Bennigan's) demonstrated that they also possessed what D'Aveni referred to as *know-how*.

The founders' expansion plans closely followed Ohmae's *key success factors* and Hamel and Prahalad's *white spaces strategies*. Outback's *key success factors* were opening units only in suburban locations, limiting operating hours to dinner hours, providing a highly standardized menu, and offering the consumer a high value to price relationship. The founders realized that a departure from these key success factors would be detrimental to growth. Consistent with Hamel and Prahalad's *white spaces*, the firm used existing menu-development competencies to create new products such as the Bloomin' Onion. Menu-development efforts at this time focused on balancing the menu between meat- and non-meat-based items. Today, only 60% of menu items are meat-based.

Stage three: maturity. Outback felt the effects of a maturing product in the spring of 1996. Units possessed strong local market shares, but same store sales growth for existing units levelled off after about two years of operations, and growth in the casual dining segment and America's infatuation with Australia had begun to dissipate. Although the chain had grown to 360 units located throughout the United States, the concept had moved from a high-potential *star* to a low-growth *cash cow*. Outback had established *strongholds* (D'Aveni) in many markets, but these strongholds were becoming harder to defend as lower-cost competitors entered suburban markets. To recharge the firm and support plans for future growth the founders utilized unconventional marketing tactics aimed at changing the competitive environment (that is, Ohmae's *aggressive initiatives*). For example, the firm signed contracts with major sporting events to become the marquee sponsor and gain national recognition (that is, the Outback Bowl—a college football bowl game). Other chain restaurant firms had not considered the exposure provided by such events and Outback gained yet another advantage over its riv-

als. It became clear that gaining and maintaining brand awareness on a national scale was a key component to remaining competitive in the chain restaurant industry.

Finally, Outback employed strategies consistent with what Hamel and Prahalad's referred to as *premier plus ten*. Under this strategy, firms identify which new core competencies should be developed and then apply newly developed competencies to existing products and markets in order to foster future growth. The primary component Outback's premier plus ten strategy was signing a joint-venture agreement with Carrabba's Italian Grill, a two-unit restaurant chain based in Houston, Texas. The founders recognized that the firm could leverage these new competencies in addition to its existing competencies and market knowledge in order to continue to grow the company. The founders acknowledged the need for a new vehicle for growth and the joint venture with Carrabba's Grill, in essence the need to develop a new sigmoid curve, was the vehicle for this growth.

Stage four: decline. Fiscal 1996 for Outback was brought about a new set of challenges for Outback. By 1 April 1997, Outback's stock—once as high as \$41 per share—dropped to \$19 per share as investors and industry analysts questioned the growth potential for either Outback or Carrabba's. The pessimistic view regarding Outback's future stemmed from the poor 1996 earnings and a declining relative market share (characteristics of a *dog*, according to the BCG matrix). Carrabba's, representative of the new sigmoid curve to fuel the company's future growth, had failed to meet growth expectations. Moreover, as the market segment reached the latter stages of maturity and early stages of decline, the company was at a disadvantage against competitors with stronger financial backing (that is, D'Aveni's *deep pockets*) and against competitors with lower food costs that could exploit Outback's food-cost weakness (using Ohmae's strategy of *relative superiority*).

Despite the negative outlook for the company, Outback maintains specific core competencies that remain valuable. As such, Outback has engaged in what Hamel and Prahalad referred to as a *fill-in-the-blanks* strategy—focussing growth on factors that made the original concept a success such as continuing to expand into suburban locations and providing standardized menus and services. In retrospect, Carrabba's failure to meet growth expectations may in fact be indicative of what can result from departing from the firm's core competencies. Sullivan, Basham, and Gannon were successful in concept creation and bringing the concept to market. The joint venture with Carrabba's represented a departure from those competencies.

Discussion and Implications for Managers

The application of the model in Outback's historical context above provides some insight into the inter-related nature of strategic analysis models. However, how much utility does the model provide as a strategy tool for strategic management research and for the practising manager? On the one hand, we hope that other researchers will follow and explore the possibilities that the introduced framework of an integrative approach provides. On the other hand, the model allows the practising manager to view strategy from four perspectives within an integrative and dynamic context, and by doing so, affords the opportunity to examine the interconnectedness of variables, perspectives, and time in the model.

The case study on Outback Steakhouse provides a descriptive, historical example of how the model can be applied. However, the model also has predictive utility for practising managers as well. For example, when a company recognizes signs that a particular product or service is a *star*, management should begin to utilize *white spaces* strategies to explore new growth opportunities (sigmoid curves) while they have the resources available. Moreover, instead of riding out the success of a *star* product or service, management should possibly seek ways to change the competitive playing field to their advantage while they have some control over it (for example, *aggressive initiatives*). In addition, under these conditions firms must realize that success breeds increased competition and the need to address price, cost, and quality issues. If management waits until their core product is a *cash cow*, the window of opportunity to invest in a new sigmoid curve may have already closed.

There are two precautions that must be made regarding the practical utility of this model. First, managers must realize that not all products or services will move through all stages of the curve. There may be market disruptions such as the introduction of a new technology in the market that change market conditions so rapidly that progression along the curve is halted or a sigmoid curve might even cease to exist.^{18,29} For example, although eight-track tapes and players once looked to have a promising future, the introduction of the smaller and higher quality audiocassettes rapidly replaced the whole eight-track tape curve. Second, market disruptions may also cause a backward movement along the sigmoid curve. Such changes can occur when economic conditions change or there is a rapid entrance or exit of players in the market.³

As noted before we presented the Outback Steakhouse example, there were reasons for select-

ing this company that also reflect a particular limitation of the model. The model is not as applicable to industries in which there is not intense competition. Microsoft's virtual monopolistic position of its operating system software is an example of an exception to the model. The strategic models selected for inclusion in the integrated model were developed to provide analytical tools for managers in highly competitive fields. Although Microsoft employs many similar tactics described in these models, it is not necessarily forced to do so in order to survive. It may be that Microsoft is in fact in the third stage of the model with few competitors.

The important message for any manager responsible for strategic analysis is that understanding where particular products or services lie along the sigmoid curve is crucial for success. Such an understanding generates insights into the strategies most appropriate given a particular market and industry

stage of development. This also provides insights as to what the firm should be prepared for in the future and the impetus for continued efforts to develop the sigmoid curves that will foster success in the future.

In conclusion, we hope that our conceptual work will not only be useful to the practitioner but also provide the basis for further empirical work within the proposed integrative model. In addition, we believe that the *Multi-perspective and Dynamic Competitive Strategy Model* is beneficial as a teaching tool in strategic management courses as it integrates a variety of perspectives within a dynamic context.

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