The following is a pre-galley-proof version of a paper that lays out one way of thinking about strategy. (It's very close to the final version, which was available only in print.)

Development of competitive strategies

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Outline

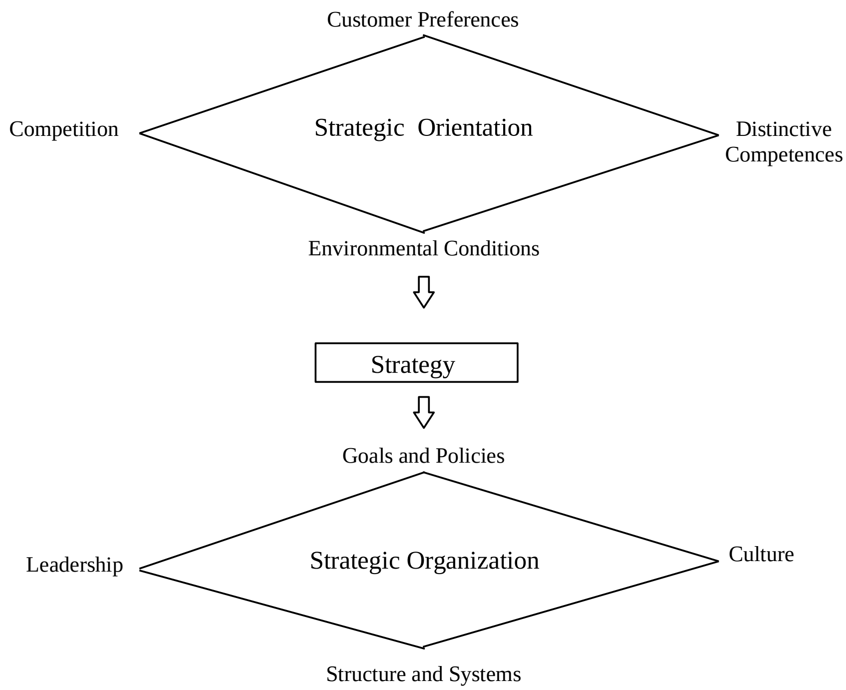
Overview

The ability to define and guide the activities which turn the inputs to a business into outputs is the essence of management. At one extreme, these activities are manageable on a day-to-day basis, with managers responding to problems and minor changes in operating conditions; this is operations management. At the other extreme are management decisions that will launch the firm on a trajectory that is expected to continue for a number of years. The long-term character of these decisions is what makes them 'strategic'. The notion of a firm's *distinctive or core competence* (Prahalad & Hamel, 1990) is used here as the anchor to develop an analytical framework--the strategic "double diamond"--that can provide a useful structure for considering fundamental strategic issues about competition.

Many models have been developed regarding the content, implementation, evaluation, and change of strategy. Any management textbook is likely to have one. The format offered here is particularly useful for organizing the thoughts and activities of senior management. The "double diamond" reflects the interaction between the major elements of strategy formulation and implementation. Its advantage is in the important linkages that are formed between these elements -- viewing any single aspect of this model individually is a useful simplifying exercise, though in practice they are *necessarily* considered in unison.

Strategic management often distinguishes between formulating and implementing strategy. The line between the two cannot be clearly drawn, but the distinction is useful for purposes of illustration. In practice, for strategizing to become truly institutionalized and successful, it must be a continual process incorporating analysis, action, feedback, and adjustment. All four of those elements may occur simultaneously.

For most firms, strategizing is a process of re-orientation and change, not of first-time development. To be most successful, the process must be continual, incorporating change within the framework of a consistent theme or guiding vision. The process is very unlikely to become continual without a clear commitment from top management to developing feedback mechanisms which can incorporate change into the firm's activities.



Defining strategy

The upper diamond in the double diamond model is about the information and relationships that should be considered in formulating competitive strategies. More specifically, it is about formulating strategies, while the second diamond mainly is about implementing strategies

One overriding message in this discussion is that the content and method of strategic management are contextual, although certainly the concepts span firms and industries. There are no precise recipes for strategic success. The factors which enter into strategy are interdependent, and firms often must choose between a number of interesting and potentially profitable strategic directions.

Before describing the model in some detail, it is helpful to understand what exactly is the output of an analysis based on those factors included in the upper diamond. There are many definitions and perspectives on strategy. The ones offered below were chosen because they suggest core strategic issues for the theme we will build regarding a firm's "distinctive (or core) competences".

Pursuit of Long-Term Rents

A common economics-oriented definition of strategy is a search for economic "rents" (similar to profits)--that is, economic performance above the norm. Writers often assume, both implicitly and explicitly, that the goal for firms is to maximize profits, stock price, or economic rents. This parallels the idea of strategy as a search for competitive advantage. Much of the existing work on strategy adopts this economic view.

However, even if we ignore imperfections in stock markets and the distinction between economic profits and accounting profits, these variables tell little about how the firm actually pursues success. They also ignore the variety of pressures on a firm--social pressures to be responsible corporate citizens, competitive pressures, technological change, regulatory uncertainty, and so on. In a broader view of performance, the stakeholder approach (e.g., Freeman, 1984) begins to address this issue. The growing literature on quality management also supports the stakeholder perspective but injects a dynamic emphasis on productivity improvement (e.g., Deming, 1986, 1993). Such writers emphasize the balancing of such goals and interests as customers, the interests of employees, the firm's own capacity for continued existence through re-investment, and benefits to others contributing to the organization (including, of course, profit for the owners of capital). Nonetheless, if the firm is to respond to those various interests over the long run, it must be economically viable (profitable). Thus, a core strategic issue is *sustainable economic success*.

Commitment to a Course of Action

An interesting alternative to traditional discussions of strategy can be found in Ghemawat's (1991) view of strategy as a series of commitments to decisions not easily undone. In this view, the underlying factor which makes a decision strategic is how hard or slow it is to change or recoup. Large expenditures of money and human effort tend to be hard to undo or redirect in the short run. For example, it is hard to undo investment in a new production facility, or in a long-term technology development program. However, there is more to the matter than just large specialized capital investments. In fact, a variety of research has reached a conclusion which we might readily expect: that a firm's future choices and success are constrained by its prior decisions and positioning in its industry. The knowledge gained by a firm and the perceptions ingrained in the market are only two of the long-run influences which will have been moulded by a firm's earlier strategic choices. Representative studies which point to this "path-dependent" nature of strategizing and performance include research on the U.S. insurance industry (Fiegenbaum and Thomas, 1990), the U.S. pharmaceutical industry (Cool, 1985), and the U.S. steel industry (Tang and Thomas, 1994). The core strategic issue suggested by this view is *hard-to-reverse commitments to paths of action*.

Winning Without Fighting

More than two thousand years ago, the Chinese military strategist and philosopher Sun Tzu argued in The Art of War that the best strategy is one which achieves goals without having to fight.

Sun Tzu (1988) espoused planning and familiarity with the environment, so that problems were avoided and the path of least resistance to success was found, thus minimizing the expenditure of resources. In business, "fighting" can be seen as direct head-to-head competition, something many firms may wish to avoid; after all, fighting generally depletes the resources of all who are directly involved, and thus leaves them weaker for the next battle. Building customer loyalty and specialized knowledge are in some sense a way to set a firm on a unique path, one with less direct competition. On the other hand, the prospect of producing an identical product and pursuing the same customers as another firm is the direct fight. The difficult, win-lose nature of this kind of contest is what induced Sun Tzu to look for a less confrontational, more prosperous route to success.

Later in this chapter we will discuss barriers (such as entry barriers and mobility barriers) as well as competences (which isolate firms from their competitors). Barriers and competences both reflect a core strategic issue of the "winning without fighting" view of strategy--*finding ways to separate the firm from its competitors*.

Continuous Improvement

A large body of work has developed in recent years on 'quality management' (*e.g.*, Deming, 1986). Quality management consists of management principles, organizational practices, and a variety of conceptual and technical tools. The strategic focus propounded in this diverse literature emphasizes a view of firms as systems capable of methodical, organized learning and improvement, with the tandem goals of raising output quality (more accurately, value) and raising system capability.

The continuous improvement or quality management perspective highlights the integrative nature of strategic management. For example, Porter's (1980) three generic strategies--cost reduction, differentiation, and focus--are popular themes for firms. The quality management perspective suggests that they are actually mutually reinforcing elements of strategy. Strategic purpose means little without a systematic method. In fact, these elements can move together: a firm can simultaneously reduce costs by improving systems and relations with suppliers and focus on improving service to a well-understood customer set and differentiate itself through both perceived and actual quality. The success of a firm like Toyota suggests the value of using quality improvement as an integrating strategy for specific production (cost-reduction) and marketing (differentiation) skills developed over time. This reflects the point that Prahalad & Hamel make about the accumulation of competence, as well as their subsequent view (1993) of strategy as efforts to leverage existing resources and capabilities in the pursuit of "stretch" goals. A core strategic issue highlighted by this perspective is *improvement*.

A Competence-Oriented Definition of Strategy

By integrating the core strategic issues suggested in each of the above perspectives on strategy, we can develop a definition of strategy as:

> *Commitment to a path is designed to build, leverage, and improve competences and barriers which differentiate the firm from competitors, allow reaction to perhaps unexpected changes in the environment, and promote the firm's sustainable economic success.*

The first diamond--strategic re-orientation

The upper half of the "double diamond" model concerns the formulation of competitive strategies, as opposed to their implementation. First we lay out the important elements of the cornerstones--customer preferences, distinctive competences, environmental conditions, and competition. Next, the links between these features are discussed. The result is an integrated view of the basic factors that should go into the formulation of competitive strategy for any firm.

Customer Preferences

Few have captured the meaning of customer preferences as plainly as Drucker (1974, pp. 77-79):

> *"To satisfy the customer is the mission and purpose of every business...What the customer sees, thinks, believes, and wants, at any given time, must be accepted by management as an objective fact...[N]o product or service, and certainly no company, is of much importance....the customer only wants to know what the product or service will do for him tomorrow. All he is interested in are his own values, his own wants, his own reality....[Thus] any serious attempt...[at strategizing] must start with the customer, his realities, his situation, his behavior, his expectations, and his values."*

While the main point of this quote -- that the customer comes first -- has been a relatively popular one among managers, it overlooks the difficulty of knowing the 'objective fact' of customer thoughts, beliefs, and wants. On a practical level, the true nature of customer thoughts, beliefs, and wants may be relatively unknown. Drucker's observation represents a noble goal, and it does seem to reflect the beliefs of many practitioners. Hamel & Prahalad (1994) have built on the above quote in offering the belief that even full knowledge of present customer wants is not enough to ensure success. Rather, they contend, it is the creation of new markets--in effect, the tapping of customer wants that had not previously been uncovered--that will drive success. This is something of a departure from classical marketing ideas, which tend to reflect the Drucker view of 'known' customer preferences.

Perhaps the most comprehensive strategy-oriented textbook view of marketing is offered by Kotler (1988), which provides a solid foundation on which to build the type of strategies that Hamel and Prahalad advocate. In a static view of marketing strategy, the concept of market segmentation is used to strike a compromise between meeting each customer's preferences entirely and providing a product or service that is 'good enough' to a large number of customers. It must be recognized that a market segment is, at best, a helpful snapshot of the present market; it does not reflect new markets that may be created by an firm that, in Hamel & Prahalad's words, is indeed 'competing for the future'. Creative strategists must attempt to predict how segments may shift and what new opportunities may arise in the competitive space. For example, Chrysler's development of the mini-van concept dramatically re-defined the family station wagon market.

Distinctive Competences

This section provides two views on distinctive (core) competences. It discusses competences in the context of resources, and then in the context of barriers to imitation and movement.

The notion of distinctive competence or core competence highlights the idea that firms need to focus on their core skills and capabilities; leveraging and enhancing these skills contributes significantly to sustainable competitive advantage. By developing and exploiting unique and distinctive abilities, ones which customers will value, the firm is trying to set itself apart from competitors and (it is hoped) out-perform them as well.

Competences and resources. Prahalad & Hamel (1990) are generally credited with introducing the term 'core competence' to the management literature. They describe a core competence as the collective learning contained within an organization. In a slight but purposeful modification, we use the term 'distinctive' competence. This highlights our belief that 1) those competences which are most valuable are those which distinguish the firm from its competitors and 2) a firm can be highly competent in more than one activity. A distinctive competence can be defined as:

> firm-specific skills and cognitive traits…leveraged directly to satisfy existing customer needs or indirectly to develop a range of core products or core services. Firms with core competencies are more than just highly adept at executing core skill sets. In addition, they have built appropriate cognitive traits which include:
>
> 1. recipes and organizational routines for approaching ill-structured problems,
> 2. shared value systems which direct action in unique situations, and
> 3. tacit understanding of the interactions of technology, organizational dynamics, and product markets
>
> Both the activity-oriented and the cognitive aspects of a core competence are built up cumulatively through learning and are constantly adapted toward applying a firm's skills so as to achieve competitive advantage.
>
> (Bogner & Thomas, 1994: 113)

One of a firm's most important strategic tasks is to build, augment, exploit, and adapt distinctive competences. Like the traditional concept of assets, competences can decay or become obsolete, and continuing re-investment is necessary not only to build on them, but even to maintain them. Continued investment in a firm's distinctive competences can enable adaptation to changing circumstances.

Distinctive business skills cannot simply lie dormant--they require constant exercise to maintain corporate "fitness" (Teece, 1990). Maintaining fitness requires not just re-investment but may also involve the acquisition and development of new competences. Consequently, one of a firm's key strategic issues is to balance the development of new competences with the improvement and use of existing ones (Penrose, 1959; Wernerfelt, 1984).

Since economic activity is dynamic, what constitutes a distinctive competence in one context or time may not in another. A competence is an asset, and its value to the firm may change much like that of other assets. For example, early in the life-cycle of an industry or a technology, a distinctive competence may bring a firm unusual prosperity. Later, if other firms learn how to imitate, the competence simply allows firms to co-exist and merely survive. Although the competence is necessary for all players, it is no longer distinctive. Japanese car makers, for example, were able to gain a foothold in the American market through their distinctive competence in the manufacture of small, efficient cars at a time when American makers did not possess a competence in this area.

History and uncertainty also matter. Firms in any given industry typically have found more than one way to survive and even prosper, and the particular path that any one firm has chosen may have a significant impact on where it goes next (Tang & Thomas, 1994). A firm's path not only opens new doors, but usually closes others at the same time. Managers can make choices, but the array of choices at any given point in time is constrained by those made in the past. Sony, for example, chose to develop the capability to design products which, through variations, could leverage a single platform. While granting itself such options, it also closed other avenues. The cost of designing a new platform of this type almost certainly is higher than developing a single-use platform; with sunk costs increased, total exit costs would be higher should the product line developed on the platform be unpopular with consumers.

The relationship between resources and distinctive competences is an important one; the ability to incrementally accumulate a particular asset (or competence) may depend in some measure on existing levels of that asset and other related assets (Dierickx & Cool, 1989). Verdin & Williamson (1992) suggest that a firm's competences leverage resources by acting as catalysts which reduce the time and cost required for a business to expand its asset base in ways which allow it to deliver a more competitive product. Connections between resources and competences may be seen also in the discussion of asset stocks and mass efficiencies found in Dierickx & Cool (1989).

Although there does not yet exist a commonly accepted set of dimensions of distinctive competence, some empirical, data-driven work has already begun. Fundamentally, though, we believe it is crucial for both practitioners and researchers to recognize that a major strategic issue for managers is how they choose to define their firm's distinctive competences given the firm's unique characteristics.

In addition to a skill or activity component, distinctive competences also reflect the knowledge, beliefs, and thought processes of managers. This cognitive component is clearly evident in Bogner & Thomas's quote above, as well as in Prahalad & Hamel's (1990, p. 82) definition of core competence as "collective learning in the organization, especially how to coordinate diverse production skills and integrate multiple streams of technology."

The cognitive components of distinctive competence relate to how a firm views its world; they are a function of the mental models, maps, recipes, and schema held by the firm as whole or by individuals within it. The activity components of competence include the skills which underlie economic success. For example, Stalk, Evans & Schulman (1992) view competence as expertise. Others view it as a set of shared value systems, substantive routines, and recipes used by management (Spender, 1989).

Additionally, resources that are necessary for all players, or barriers that protect all players, do not particularly help a firm to distinguish itself from others. For example, possessing taxi or liquor licenses, or even specialized machinery, does not necessarily mean a firm will do better than its peers. Firms may achieve rents not solely because they hold better resources, but rather because they make better of the resources they have (Penrose, 1959). Fundamentally, *how* a firm mobilizes its resources determines what activities it becomes good at. A firm does not have a competence in engineering simply because it possesses skilled engineers: the firm must have systems in place which will make effective use of those skills.

Competences and barriers to imitation and movement. Entry barriers, mobility barriers, and isolating mechanisms are variations on the same theme. They all refer to circumstances or factors which make imitation difficult. At the industry level, we speak of entry barriers which protect incumbent firms as a group from new entrants. At the strategic group level, we speak of mobility barriers which protect a set of firms in an industry from others. At the firm level, we speak of isolating mechanisms which allow the firm to remain different from other firms. Although these barriers are generally thought of as beneficial, they often constrain the firm as well by making it harder to leave an industry, change position within the industry, or to change the specific characteristics of the firm. Since we are concerned primarily with the strategizing of individual firms, the rest of this discussion focuses on isolating mechanisms.

Competences may generate sustainable profits for the firms possessing them, but there must also be isolating mechanisms which make the competences distinctive, rather than common to many firms. If a firm can readily imitate another then obviously the benefits of competences are not sustainable. Thus, critical skills and resources must be difficult to imitate to sustain competitive advantage. Mahoney & Pandian (1992) provide a comprehensive list of these firm-level isolating mechanisms. They also generalize the literature on isolating mechanisms by suggesting that, absent government intervention, isolating mechanisms result from the asset specificity and bounded rationality that are critically important in the theory and practice of transaction-cost economics (Williamson, 1985). This is stated somewhat differently by Lippman & Rumelt (1982), who attribute the existence of isolating mechanisms to the rich connections between uniqueness and causal ambiguity. In other words, knowing that a firm possesses or wants a distinctive competence in some area does not explain how to create or imitate this competence.

One reason that distinctive competences are not always easily imitated or easily disarmed by competitors is that they build on themselves: the more that becomes known, the more can be learned. In other words, knowledge is a compounding asset. Penrose describes this in her discussion of knowledge accumulation occurring through experience. Experience is accumulated through the use of the specific resources which a firm possesses. Knowledge accumulation, then, is a direct function of the resource configuration of the firm. In turn, this knowledge aids in the accumulation and transformation of valuable resources, changing the firm's resource configuration and consequently the direction of knowledge accumulation. With regard to competences, there is a "virtuous circle" (Penrose, 1959, p. 73) where the dynamics just mentioned are self-reinforcing drivers of a firm's distinctive competences.

In short, then, distinctive competences are characteristics developed by the firm, characteristics that possess attributes both of resources and of barriers.

Environmental Conditions

Observations and assertions about the environment in which the firm operates cannot be neglected in formulating any meaningful strategy.

Fuld (1995) analyzes the composition of 'corporate intelligence' in a way that includes notions of government regulation, competitor actions, and customer preferences. Among the factors that are prominent in any assessment of environmental conditions are home-country government regulation, foreign government regulation, patent protection (an important subset of government regulation), and social conditions.

Government in the home country plays a large part in setting the social agenda for the nation, and the corporate world is included in this social agenda by virtue of the significant role it plays in shaping people's lives. Government action may not always be quite a 'shock' (as it often portrayed), as there usually is significant warning and time lag before government in industrialized countries take any drastic action. At the same time, as a corporation gathers information about impending action, it can be better prepared not only to react to this action, but also possibly to help shape it to suit its own purposes. Further, since different governments may be operating with different constraints and interests, the firm must be able to gather reliable information about the governnmental process for each of the locations or countries in which it operates.

One such governmental issue frequently of concern to firms operating internationally is patent and copyright protection. These subsets of government regulation are mechanisms designed to promote innovation by increasing the innovator's ability to benefit from such innovations. However, this system works differently across nations, and protection varies not only across nations but across industries. Further, there is the problem that the act of simply filing for patent protection may do more harm than good, as this releases information to the public that, in turn, can be used to 'invent around' the patent that may be granted. For products that can be reverse-engineered, such as electro-mechanical products, patent filing may simplify imitation by competitors. On the other hand, products with unique physical or chemical characteristics, such as pharmaceuticals, may find real protection in patents.

An additional element necessary for any environmental analysis is the existing social conditions -- the attitudes of the community in which the business operates. The word 'community' is used loosely here, as this can range anywhere from a very small group of people to a level of aggregation probably as large as a nation. The important consideration is: when the firm makes a strategic decision, who is affected? This is essentially a stakeholder view of the firm (e.g., Freeman, 1984), in which both opportunities and constraints that otherwise may have gone unheralded can be brought to the forefront in the decision-making process. In considering stakeholders, the firm must first gather information not only about who they are, but about their attitudes and behaviors. Fuld (1995) provides helpful prescriptions for gathering such information.

Effective environmental scanning also is necessary to keep up with technological change, which can have major strategic implications for the firm. Among other things, technologies can influence demand, cost, relationships with suppliers and with other firms, and the firm's own organizational goals and systems. Interestingly, the reasons that technological innovations take hold and spread and become the "dominant designs" may have little to do with design itself. Consequently, the dominant design is not necessarily the technology superior one. Typically the adoption process for new technologies has been viewed as a black box process involving a sophisticated interaction of technological and non-technological factors.

Much of the earlier research on technological change and innovation focused on the differences between pre- and post-dominant design periods. Researchers are beginning to identify on a strategic level the various links between the complex set of factors underlying the commercialization and spreading of technologies.

A convenient strategy-oriented framework for systematically analyzing this problem can be found in Lee, O'Neal, Pruett, & Thomas (1995). That framework emphasizes the role of certain external conditions (network externalities and appropriability), non-technological forces, and complementary assets. Lee *et al*. argue that firms can frame the emergence process and systematically manage elements of it in the pursuit of competitive advantage from innovation. A given set of technology circumstances may offer a firm several different strategic alternatives. For example, a high level of appropriability means that the firm is able to protect an innovation from imitation, perhaps because of product complexity, plant security, or patent protection. Conversely, encouraging imitation may spur market growth and the use of the firm's own technology, as IBM discovered (perhaps by accident) in the personal computer market with its "open architecture."

The adoption of technology by producers and consumers is much more than competition between the technological characteristics of innovations. Analyzing the forces that influence or impede a particular innovation is crucial to neutralize the blind-spots and separate agendas that often can influence decision-making at the functional and divisional levels, particularly in the promotion of an innovation. The variety of non-technological forces that may be involved (economic ones, as well as organizational and socio-political ones) make technological analysis an indispensable part of the strategic planning process.

Competition

The fourth cornerstone in the strategic re-orientation diamond is competition. Including competition in strategic planning moves the firm beyond introspection. Any analysis of a given firm's strengths and weaknesses is not useful until placed in a context that allows them to be viewed relative to those of other firms that may be competing in some of the same markets. These competitors can be defined in any of a number of ways, with the techniques available being largely complementary to one another.

Levels of strategic analysis. There are five levels of analysis in defining competition: the individual firm, strategic groups, the industry, the nation, and the global level.

The narrowest level of analysis in defining competition is the individual firm. A recent popular conception of the characteristics of an individual firm has been the *resource-based view of the firm,* in which firms are seen as bundles of unique resources that may provide superior rents. The processes by which these unique resources accumulate are important pieces of the puzzle that have not yet been put in place. However, the concepts of imitabilty, barriers to imitation, uniqueness and decay have been extensively addressed.

At the level of strategic groups, firms are seen not as individual actors nor as faceless players in an industry, but as players who tend to form a number of strategic clusters within the industry. With this, the industry looks neither like a set of firms with randomly distributed strategies nor like a set of homogeneous firms (as in the classical industrial organization view). Instead, firms will form a number of distinct clusters within the industry, with each cluster representing homogeneity of some sort, depending on what are taken to be the defining characteristics of firms' strategies. Such defining characteristics may be based on

--structural-type measures of the composition of the firm (e.g., Hunt, 1972; McGee & Thomas, 1986)

--cognitive maps of managers(e.g., Porac, Thomas & Baden-Fuller, 1989)

--combinations of resource similarity, shared beliefs, and competitive interactions (Thomas & Carroll, 1992).

Clearly, although a firm generally is concerned with the state of competition in its industry as a whole, it also typically has a smaller set of competitors of particular concern. Although much of the research on strategic groups has sought to cluster firms based on their commonality of assets, a much richer and probably more useful definition of strategic groups is based on the concept of 'cognitive communities'. In a cognitive community, firms not only have similar assets, but also share similar beliefs about the nature of the industry and interact significantly with each other in the market. For example, General Motors and Volkswagen have much more in common in terms of assets, beliefs about the nature of the industry, and interaction in the marketplace than do General Motors and Ferrari. The most useful strategic group analyses look at multiple dimensions (McGee, Thomas, & Pruett, 1995).

Taking another step toward broader units of analysis, we arrive at the industry level. Analysis at the industry level identifies trends and factors that may directly affect a wider number of firms than in a particular strategic group. A popular framework at this level is Porter's "five forces" (Porter, 1980; 1985). In using this model, the strategist is in essence examining the environment (including other firms) and placing entities into any of six categories - rival, buyer, supplier, potential entrant, substitute, or irrelevant. The firm, of course, is not much concerned with the sixth category, but Porter's model outlines an array of factors that are important in formulating strategy to deal with the entities that fall into any of the other five.

Industry analyses are most commonly thought of in terms of the set of firms producing similar products, but the strategic analyst is not constrained to thinking solely in terms of products. The analysis may consider firms using similar technologies, or firms with different products which serve the same customers. The working definition of industry should be considered carefully.

At a still broader level, the firm is seen as part of a larger unit of analysis, that being the nation. In this view, the firm may have distinctive competences, but so does the nation. These national competitive advantages are seen to result in conditions (among them government policies) that affect industries differently within the national economy. While government plays a role in the structuring of the environment in which its firms act, such structure is usually taken as a given; firms must then learn how to perform within the constraints of this system. For example, Japanese firms' dominance of the world camera industry may be driven directly by the Japanese public's passion for photography, relative to other countries.

Finally, we reach what appears to be the limit in terms of unit of analysis--the global level. Porter's 1990 framework accounts for differenes in business practices, technology, and government policies across countries in a way that allows individual firms to formulate strategy. Firms in a given industry are likely to be able to use similar information about the competitive strengths of particular foreign lands to assess the attractiveness or unattractiveness of doing business there.

The multiple levels of analysis and the numerous factors that merit inclusion in strategic planning may lead the exasperated general manager to seek a highly structured approach. Structure enables planning, but it contains its own pitfalls.

For example, business strategy often used to be called business planning. Large organizations always have needed long-range perspectives on where they should or could go, how to get there, and what might happen along the way. Starting in the 1950s and running through the 1970s, corporate business saw dramatic growth in formal planning systems. However, the overly mechanistic, overly expensive, and unrealistic nature of some of these attempts led to a backlash in some firms against formalized planning schemes. The problems many firms had with formalized strategic planning may have been partly an issue of how firms carried it out, and partly a failure to consider adequately the increasingly dynamic nature of many industries and product-markets.

Strategic choices are risky and not easily undone, and a firm ignores uncertainty at its own peril. Certainly, some choices may preserve flexibility better than others. For instance, flexible manufacturing systems may be a less risky way than dedicated production lines to make products for a changing market. For a firm with dedicated production lines, though, the move to flexible manufacturing still requires an objective assessment of the strategic benefits since there is a cost to the move.

Failing to recognize the firm's limitations can cause analysis to fail. More broadly, there must be an appreciation for the history of the firm, strategic group, and industry. How has behavior evolved? How has technology evolved in this industry? Has the firm's or industry's history led to a particularly strong world view or dominant logic (Prahalad & Bettis, 1986)? What are the implications of how the firm and industry have evolved in the past? Strategy is not bound by the past, but it must reflect it.

Links Between the Cornerstones of Strategic Re-Orientation

Links Between customer preferences and distinctive competences

The interplay between customer preferences and distinctive competences suggests at least three strategic choices a firm may explore:

1. *Incremental strategic change*--focus on improving the match between existing preferences and existing competences. Although a firm presently may have the capacity to provide what customers desire, various factors may cause impediments. Two examples of why the firm may not satisfy market desires, even though it possesses the latent capability, are a poor understanding of market preferences and weak coordination between functional areas. Caterpillar, the American earthmoving equipment maker, provides an interesting example. Two of Caterpillar's obvious competences are its design/engineering skill and its distribution function. The firm is well-known for the technical excellence and capabilities of its products and the high service levels of its parts distribution network. In the early 1980s, however, Caterpillar suffered substantial and unexpected losses. Analysis of the causes led the firm to conclude that one critical factor, among a variety of factors, was the rigid functionally-oriented culture of the firm. This was not the only story underlying the firm's losses, but the firm saw it as a particularly salient one. Engineering dominated the firm, and feedback links and coordinating mechanisms between functional areas were neither flexible nor responsive. The result was over-engineered, unnecessarily expensive products that were not well linked to what the market desired. The nature of the act of earth-moving was not changing radically, and Caterpillar's technical skill was far from obsolete. There was, however, a mismatch between the two.

2. *Competence building*--arises when customer preferences suggest areas in which the firm may need to acquire or build resources or skills. That is, what can the firm add to its resource and skill base to better serve existing customers? Of course, the firm need not acquire or build them directly, since outside suppliers often are used to gain access to resources or skills.

3. *Competence leveraging*--when the firm perceives additional uses and markets for its existing capabilities. Competence leveraging may take several forms. The firm may develop new products for its existing market, or it may attempt entry into new markets. Using distinctive competences to test (and, it is hoped, create) demand by introducing new products and new product concepts is the essence of what Hamel & Prahalad (1992) term "expeditionary marketing." Competence leveraging can be seen clearly in, for example, consumer goods companies such as Procter & Gamble and Unilever, which have built methodical approaches to researching, developing, and marketing of consumable household and convenience products. Those methods are used repeatedly for goods which may have economies of scope in distribution but otherwise may have very little in common (e.g., toothpaste and laundry detergent).

Matching competences to market opportunities requires knowledge of market preferences. However, many firms have learned painfully that market preferences are not given. Preferences do, however, depend partly on what customers have been led to believe is available or what they imagine could be available. Distinctive competences thus can mold preferences. For example, the electronics maker Motorola has turned the reduction of product defects into a highly publicized strategic priority. By initiating and institutionalizing its "Six Sigma" program of product and process improvement, the firm has become distinctively competent at defect reduction. An intense effort to publicize these skills has not only increased pressure on competitors, it has also raised the market's sensitivity to product quality. In the automobile industry, the quality efforts of firms like Toyota and Honda have likewise raised market demands for quality.

Links Between Distinctive Competences and Environmental Conditions

The notion of strategic management evokes the significance of the firm's industry environment. Two significant external forces affecting the viability and prosperity of a firm are technological change and governmental and social influences. Technological change drives and is driven by strategy and competition. Government and society sometimes look to business for guidance, yet they also mold firms' approaches. For example, the proliferation of government-sponsored quality awards has substantially raised firms' awareness of the significance and complexity of quality issues. These external forces simultaneously pose constraints and opportunities.

Cooperation with suppliers or competitors is fairly obvious, but the firm may also identify opportunities for cooperative efforts with less obvious partners, such as government and potential competitors. For example, joint development of regulatory standards with government may be used to forestall undesired activity. Joint technology development activities with potential competitors may be used to guide development down a path in which the firm has a distinctive competence or wishes to build one. It may also mold technological development in a way that will be able to indirectly make use of the competence.

Customers may be subject to the same pressures as firms. Sometimes those conditions lead to a favorable merging of customer preferences and firm conditions. Falling energy prices, for example, can lower the firm's cost of production and raise demand. However, the more interesting case is when environmental conditions generate conflicting pressures for the firm. Pressures which make obsolete or otherwise threaten a firm's distinctive competence can be life-threatening. There are then three strategic choices available to the firm.

1. *Adaptation*--recognizing that the firm's distinctive competence will become obsolete if the firm does not substantially alter its competence mix. This may require building on the old competence or, in the case of substantial technological change for example, may require the firm to salvage what it can from the old competence and devote effort to building or acquiring a substantially new one.

2. *Preference modification*--the firm seeks to influence market demand in order to reduce the incongruity between customer preferences and the environmental factor responsible. If, for example, consumers demand convenience, and the government demands waste reduction, the packaging materials producer may have to raise public awareness of the benefits of recycling packaging materials, even if those benefits come at the cost of disposal convenience. In fact, recycling presently is being promoted in this manner.

3. *Pressure alleviation*--removing or alleviating the environmental factor in question. Seeking governmental protection from new technologies through various means is one such well-used approach.

Links between Environmental Conditions and Competition

The competitive conditions facing the firm, whatever the relevant unit of analysis may be for a given strategic decision, are tightly integrated with factors important in an environmental analysis. First, it must be recognized that the important choice of the relevant unit of analysis will define the boundaries of the environmental analysis. If, for example, the unit of analysis is taken to be a global market, then social conditions and attitudes will need to be aggregated to a level that is difficult, if not impossible, to achieve. Some trade-offs may be necessary in these decisions. Whereas trade-offs usually denote some sacrifice of accuracy in the ultimate decision, in this case any loss of accuracy likely will be secondary in magnitude relative to the increased information that can be included simply by considering the unit of analysis and the environmental conditions simultaneously.

Environmental conditions may become increasingly important to consider when the analysis is at the international level. In particular, when foreign market entry decisions are a primary topic in the decision, the norms of the business environment should receive heavy consideration in determining a viable mode of entry. For example, it generally is recognized that an increased value that Japanese managers place on long-term relationships has reduced the transaction costs associated with inter-firm relationships among Japanese firms relative to those in the rest of the world.

Rivalry also takes different faces depending on what unit of analysis is chosen in strategic decision-making. When the firm is the unit of analysis, all entities outside that firm may be perceived as rivals, whereas in a strategic groups analysis, some are explicitly recognized as partners in building mobility barriers while others are seen as competitors in the form of potential entrants into the group. Thus, depending on how much society values long-term relationships and trusts business to act in ways that promote, at least to some extent, general welfare (as opposed to the firm's own wealth), different units of analysis will be viable. Further, government regulation helps define the range of permissible units of analysis; this is not necessarily so (and in fact varies across governments) but rather reflects attitudes toward business.

Links Between Competition and Customer Preferences

The strategic groups literature summarizes in a unique way the interaction between customer preferences and competition within an industry. The notion is that a handful of firms within an industry collectively fills a market niche, thus competing within this group in some ways yet cooperating in others (particularly in building barriers to keep others out). Even within groups, firms may space themselves relatively far apart, thus moving even further from direct competition with others. This phenomenon is driven by the notion of market segments--each strategic group is effectively serving a unique segment of customers, and creating a smaller, parhaps less rivalrous, subset of an industry.

Market segments are a snapshot of an industry at any given point in time, and even then they are only an approximation of individual customers' preferences. Hamel & Prahalad (1994) offer the view that the real point of competition is not so much for market share within these segments (or even for market share across all consumers). In their view, the important mode of competition is to *create* markets, in which the creating firm then has advantage because the distinctive competences that led it to create this particular market will have only been strengthened in the process. A result of this process is that the firm that can best read, or perhaps create, customer preferences in the early stages of competition will have the upper hand in the latter stages also, once others have entered the market.

The level of analysis chosen for the strategic decision has implications for the reading of customer preferences. First, the segmentation of markets can be a useful tool in some cases, when the industry structure or the technology involved is conducive to serving particular segments individually. Further, when the industry is international, then market segments must either be defined by national borders or across these borders (in which case some cultural and legal differences most likely are causing some loss of marketing effectiveness). This is the issue of standardized "global" products versus products tailored to accommodate national, regional, or demographic differences.

An Additional Bridge: Distinctive Competences and Competition

A firm may engage in various competitive or cooperative activities with similar firms, suppliers, customers, and indirect or potential competitors. Competing firms generally are of central interest. However, identifying and assessing direct competitors is easier than identifying *indirect* competitors (substitute goods) and, especially, *potential* competitors. The next step, identifying the distinctive competences of competitors, may be particularly difficult.

Although competition tends to receive the bulk of attention in strategic analyses, cooperative relationships merit consideration as well. For example, the firm may already engage in cooperative alliances or research programs with suppliers, customers, or even with direct 'competitors.' In fact, Prahalad & Hamel (1994) see success being defined as the success of coalitions of firms, rather than of individual firms.

The point is that competition and cooperation are strategic choices. They are alternatives in strategy formulation. Having identified the parties that do or could influence the success of a firm's basic strategy, it is possible then to consider what mix of competition and cooperation is viable and desirable in each relationship. That mix of competition and cooperation has direct links to the firm's distinctive competences and to those of other firms. Fundamentally, the firm's distinctive competence is what allows it to serve customers in the first place. Since a competence is something the firm can offer in a business relationship, it can form the nucleus for cooperation with various partners.

For example, the technological competence of IBM in design has been married with a relatively open-systems approach to product and component supply, most notably in the personal computer market. Many firms make computer products and components which are compatible with IBM's design format. In some cases, the firm works particularly closely with competing outside manufacturers to assure compatibility and quality standards so that IBM's competence is not compromised, in the eyes of the market, by inferior goods.

In another example, the U.S. retailer Wal-Mart has built a distinctive competence in logistics and distribution for retailing. Suppliers and retail sites are chosen partly on the basis of location relative to existing sites. This allows distribution trucks to deliver goods to stores and pick up supplies all on the same route, thus attaining maximum productive use of distribution capacity, and hence reduced overhead. In building this tightly linked web of suppliers, Wal-Mart has gained an active hand in the production schedules, and even the choice of plant site, for many of its suppliers. As coordinator of a complex production-distribution-retailing system, it forms the center around which suppliers coalesce.

It also is interesting to consider similarities in competences. The more closely a firm's competences match those of a competitor, the more likely the two are to end up competing vigorously against one another. When competences are dissimilar, the intensity of direct competition may be moderated.

The second diamond--strategic change

As discussed above, the upper half of the "double diamond" focuses on the formulation of a strategy, in which the strategist develops a set of viable alternatives. But, how are these to be narrowed down to a chosen one and, especially, implemented? No strategy can be considered to be complete until it has been successfully implemented. In fact, formulation and implementation more realistically must be considered in unison; breaking them apart is a useful simplifying exercise and is at least partially viable in practice, but implementation issues cannot be overlooked even in the formulation stage.

The lower half of the "double diamond" provides some clues to this complex interplay by emphasizing organizational elements central to implementation--strategic goals and policies, leadership and culture, and structure and systems. It suggests that implementation issues affect the firm's strategic choices. The reverse also is true: the firm's strategic choices shape the firm's structure and process.

Other authors cover in detail many issues of organizational design and organizational behavior. We therefore will touch only briefly on various concepts relating to the second diamond, giving primary emphasis to their implications for the firm's strategy.

The culture of a firm may itself be a source of sustained competitive advantage. On the other hand, it almost goes without saying that culture may also form a distinct disadvantage in competition as well. Miller (1985) makes the interesting observation that the success a firm enjoys may be the very cause of its downfall if the firm becomes unable or unwilling to perceive changes in its environment.

Like researchers rooted in economics, researchers based in organization theory also have developed classifications for generic types of strategies. For example, Miles & Snow (1978) suggest that a firm's basic strategic behavior can be seen as a pattern in a stream of conscious managerial decisions. Their framework is particularly useful because it suggests the significance of organizational factors underlying strategy. They suggest that a firm's basic strategic behavior is most likely of one of four types: defenders, prospectors, reactors, and analyzers. These basic patterns of behavior can lead to insights about how particular firms operate and what drives them internally.

1. A *defender* is a firm with narrow product-market domains and focused on efficiency. In Miles & Snow's terminology, firms centered on Porter's (1980) generic strategies of cost reduction,

differentiation, and focus can be viewed as defenders. Those strategies, which are strongly influenced by the field of industrial organization, are essentially about building and protecting market share of existing markets.

2. A *prospector* is a firm which routinely searches and experiments with innovations and new markets. These firms bring to mind the discussion earlier in this chapter of firms actively engaged in seeking out market opportunities and developing new products and processes. This type of future-oriented firm is at the heart of Hamel & Prahalad's (1992) "expeditionary marketing" and their (1994) book on "competing for the future".

3. A *reactor* is a firm which perceives frequent change and uncertainty but is unable to develop a consistent response. We can find an interesting example of reactors in firms which play catch-up with other firms. For example, the increasingly widespread practice of benchmarking is a powerful tool for competitive analysis and for improving a firm's operations and products. In its simplest form, however, benchmarking is the behavior of a reactor. Clearly, benchmarking can be used in more thoughtful, anticipatory ways, but at a minimal level it comprises a firm's response to other firms. If used only at that level, it is essentially a catch-up tactic.

4. An *analyzer* is a firm which places great emphasis on observing and understanding its environment. Royal Dutch Shell, famous for its highly developed scenario-based strategic planning, provides a good example of an effective analyzer. However, although information predominates in this very organized approach to planning, there is nonetheless a strong subjective aspect. Shell's development of scenarios depends on information, but would mean little without informed judgement calls.

Links Between Distinctive Competences and Implementation Factors

There are important links between the upper half of the "double diamond" and the lower half of the model. Many of these issues are discussed elsewhere, but three seem particularly critical: the relationship between a firm's distinctive competences and, respectively, strategic goals/policies, leadership/culture, and structure/systems.

Links between distinctive competences and strategic goals/policies. This at first appears to be a circular problem, a chicken-and-egg dilemma. It seems sensible to chose goals which will reinforce or exploit the firm's distinctive competences. On the other hand, goals also may be chosen in order to pursue the development of new competences. Underlying this apparent dilemma is the issue of performance. Generating a distinctive competence is in itself not desirable. The competence must have value, and that value comes from being put to some application that contributes to corporate goals. As suggested earlier, those goals may include more than simple economic profit. Any empirical research on distinctive competences and strategy faces the same problem as, say, research on organizational form or on performance. Put simply, it is difficult to determine motive from outcomes. At the same time, it is difficult to expect that motives and methods will result in desired outcomes--partly because of uncertainty, but also partly because of the interactive evolution of competences and goals.

Links between distinctive competences and leadership/culture. Leadership which conflicts with a distinctive competence may dissipate the competence. However, there is a particularly interesting effect when the two converge, rather than diverge. Leaders and culture which converge too closely with a distinctive competence may eventually make the system vulnerable to environmental change. For example, for many years IBM had a very homogeneous culture. The "Big Blue" image of white shirts, blue suits, and red ties was a parody, but one rooted in reality. When the personal computer arose as a possible competitor to IBM's distinctive competence in mainframes, the firm found it difficult to adapt. The organization changed its culture by hiring new people. The old culture was deeply ingrained in an existing distinctive competence that it was not readily able to admit to the possibility of a new one. The firm's "dominant logic"--its prevailing view of the world and how competition worked--had become a domineering logic.

Links between distinctive competences and structure/systems. The ability of an organization to change in positive directions is also an issue in terms of organizational structure and systems. Consider the start-up of a new firm. Perhaps, based on the skills of its founders, it soon builds a distinctive competence in product design, or in customer service, or in some other facet of business. Clearly, as the firm grows and evolves, management will wish to organize it in a way that supports and strengthens the distinctive competence. However, as the firm begins to grow and prepare for the long-run more consciously, it may find that the structures and systems it will need ahead are not entirely conducive to its existing distinctive competence. And, as structure evolves to meet changes, than the needed distinctive competences may change too. As the reader can observe in the other elements of the Double Diamond model, there are complex interactive dynamics, dynamics rendered even more complex by time lags of uncertain duration and effect.

Conclusion

Like any analytical framework, the "double diamond" model of strategic re-orientation and strategic change highlights only some issues. It gives prominence to the links between distinctive competence and certain factors involved in strategy formulation and implementation. It does not, however, directly reflect many other issues: diversification and integration, the management of change, and the practical question of how to actually carry out analyses of the factors discussed here. There is, though, a wealth of literature on these subjects.

The "double diamond" framework contains a key message for managers and for researchers. In the ever-growing variety of business choices and dilemmas the typical firm faces, it is well worth returning again and again to the fundamental question posed by the idea of distinctive competence:

What is it that a firm does well, or could do well?

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