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Are you making three very big—and often very bad—assumptions? Don't assess uncertainty unless you are willing to abandon your favorite formulas. Bets and options may be more important than positioning choices.

Ithough strategy today is a demanding, complex, and subtle discipline, you would never know that from reading the management journals and business best-sellers of the past five years. Each season brings a new crop of experts proclaiming that their frameworks—core competencies, customer retention, management ecosystems, strategic intent, time-based competition, total quality management, "white spaces," managing chaos, value migration—are definitive. These solutions sometimes prove an exquisite fit, but just as often they offer only a mediocre approximation.

Nonetheless, managers reach out to these new theories because the classical microeconomics-based model of strategy is inadequate in a growing number of situations. Consider some recent examples:

• A telco executive must make a \$1 billion "yes or no" decision on whether to invest in a new network technology to provide new services to customers.

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One best-practice market research survey predicts a return on investment of 25 percent; a second, equally valid, forecasts minus 25 percent. What should that executive do?

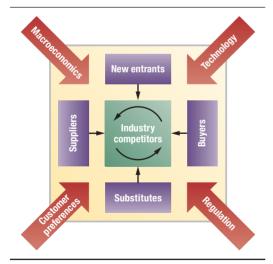
- How should executives at a software firm deal with a large customer that is also the firm's chief competitor—and one of its biggest suppliers?
- How should the chief executive officer of a credit card company think strategically about positioning when segments and value propositions come and go every six months?
- A large regional bank recognizes that to succeed on the retail level, the bank must take the lead by discovering huge but as yet unrecognized customer needs. How can it embark on such a strategy?

All of these cases lie outside the conditions for which the traditional model of strategy was designed. In fact, our work suggests that up to 50 percent of the strategic problems faced by large companies lie outside those conditions. Equally, no single new framework can address them all.

Therefore, it is time for a new approach to strategy. The past 20 years have seen a wider range of business environments emerge than ever before. No

EXHIBIT 1

The Porter model of industry



single strategy prescription can be appropriate in each of them. What is needed is a more robust business model that can handle a much broader set of circumstances and suggest when and how specific theories should be used.

The shortcomings of the traditional approach

At the heart of the traditional strategy framework lies a microeconomic model of industry. Exhibit 1 illustrates the model's popularized form: the Porter model, which combines exogenous forces (such as technology and regulation) that act on an industry

with endogenous ones. More important, it makes three tacit but crucial assumptions. First, an industry consists of a set of unrelated buyers, sellers, substitutes, and competitors that interact at arm's length. Second, wealth will accrue to companies that can erect barriers against competitors and potential

entrants; in other words, structural advantage is the source of value. Third, uncertainty is low enough to permit you to make accurate predictions about the participants' behavior and to choose a strategy accordingly. Even if any one of these assumptions were correct, the likelihood of all three being so would be low. Let us examine their validity.

Industry structure

The traditional microeconomic model is based on a "rational" industrial structure in which each player competes at arm's length not only with its rivals but also with its customers and suppliers for control of economic rents. However, at least two other industry structures are commonly found: codependent systems and privileged relationships. In both of these structures, conduct differs from the sort prescribed by the traditional model—and anyone blindly applying the standard microeconomic rules will get into trouble.

Codependent systems are cross-industry structures such as alliances, networks, and economic webs. The most novel but increasingly widespread of these is the economic web: a set of companies using a common architecture to deliver independent elements of an overall value proposition that grows stronger as more companies join the set (for example, the "Wintel" and Apple webs in the computer industry). The fortunes of any player in a web depend both on the success of the web as a whole and on how well that player uses its own position of influence within the web. The strategic challenge is to strike the right balance between the prosperity of the web and that of individual participants; greedy players can harm themselves as well as wreck the web.

High-tech industries such as computers, telecommunications, software, and multimedia are moving toward web structures, but evidence of webs can also be seen in older sectors such as automobiles, health care, forest products, and financial services.

Privileged relationships are structures within which firms single out other firms in the same market for special treatment because of a financial interest (Korean *chaebols*, Mexican *grupos*, and Japanese *keiretsus*), friendship, trust, or ethnic loyalty. Governments create similar business relationships in the name of national defense or pride.

Consider also the Indians and overseas Chinese, who have networks of family-owned corporations in which relationships among members are

¹For a detailed examination of web industry structures, see John Hagel III, "Spider versus spider," on page 71 of this anthology.

clearly privileged. In such situations, the actions of network members must be understood in the light not only of their own strategies but also of the strategy of the whole network and of the individual members' positions in the family hierarchy.

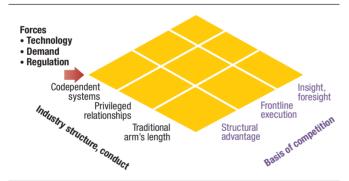
Source of advantage

The traditional microeconomic model assumes that wealth will accrue to businesses that have a structural advantage over competitors and potential industry entrants. In major sectors of the economy—telecommunications, basic materials, transportation—this is still true. But competitive advantage can also be built on two other foundations.

Frontline execution. Companies in some industries win by consistently outperforming competitors in the execution of day-to-day tasks. In commercial lines property-and-casualty insurance, for instance, a few players have demonstrated that superior underwriting and claims handling can over-

EXHIBIT 2

A new industry model



whelm any structural advantage a competitor may have.

Insight and foresight.

Some firms create wealth by possessing knowledge or having insights that others lack. The knowledge may lie in scientific or technical expertise (Hewlett-Packard's continuing superiority

in printers), pattern recognition (the ability of some banks to make consistent profits by taking short-term positions in foreign exchange), or sheer creativity (Disney's unmatched success in animated films).

If the three (that is, one old and two new) sources of competitive advantage are brought together with the three (again, one old and two new) industry structures mentioned earlier, the result is a new model that better reflects the rich strategic possibilities of today's industrial landscape (Exhibit 2).

Levels of uncertainty

The traditional model assumes that uncertainty in an industry is low enough for executives to make reasonably accurate predictions on which to base strategy. In reality, the future is usually harder to judge. When faced with uncertainty, executives tend to leap to extremes. Some simply pretend that uncertainty does not exist; others see it, but it paralyzes them.

What should strategists do when the result (at least in part) of their situation analysis is "I don't know, and no amount of good analysis will tell me"? Certainly, they should not just resort to scenario planning and recommend options. The secret of devising successful strategies lies in ascertaining just how uncertain the environment is. Four levels of uncertainty can be identified.

At level one, the traditional microeconomic model still holds, and strategists can develop a single useful prediction of the future. This means, not that there is no uncertainty, but rather that analysis will be sufficiently robust to allow a clear strategic direction to emerge. Appropriate sensitivity analysis can be performed after a course of action has been determined. Consider the fast-food industry, where change over the past decade has been evolutionary, allowing companies to base their strategies on predictions.

At level two, analysis shows that the future will follow one of a few discrete scenarios, though it cannot predict which one. In late 1995, for example, the outline of the pending US telecommunications legislation was clear; what was not clear was whether it would pass Congress. In this case, strategy could be built around two possible scenarios. Generally speaking, since the number of scenarios is usually small at this level of uncertainty, strategy can be determined analytically.

At level three, continuous uncertainty prevails. Though there are only a few dimensions of uncertainty, analysis can't reduce the future to a limited number of discrete scenarios. Instead, the reality might lie anywhere along a continuum for each dimension. Many new technologies, for instance, face uncertainty over the rate of market acceptance.

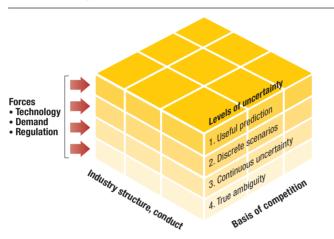
At level four, there is true ambiguity: a number of dimensions of continuous uncertainty. Consider the case of a multinational deciding whether to invest in Russia in 1992. In addition to an unusual degree of uncertainty over demand, the company would have faced uncertainty about the laws that would govern contracts, about who would have the power to enter into them, and even about whether current suppliers and distributors would remain in business.

These graduated levels of uncertainty govern the type of situation analysis needed. At level one, traditional frameworks are entirely appropriate. At level two, scenario planning, quantitative game theory, and options-pricing frameworks will be needed to help determine strategy. At levels three and four, qualitative game theory, latent demand analysis, and evolutionary models will be required.

When this concept of uncertainty is combined with the new industry model illustrated in Exhibit 2, the result is a new approach to situation analysis (Exhibit 3). This new approach takes account of the varying levels of uncertainty about the external forces acting on an industry, their effect on it, and its

EXHIBIT 3

Situation analysis



interactions with itself. It also shows that the level of uncertainty can rise and fall over time.

A new definition of strategy

Traditionally, strategy was defined as an integrated set of actions leading to a sustainable competitive advantage. This definition continues to work well in traditional industry structures character-

ized by a low degree of uncertainty. Beyond this limited context, however, we believe that a broader definition is needed. For example, in situations of high uncertainty, strategy is likely to call for more than a single integrated set of actions; it will probably require investment in a variety of options, small bets, and so on. The new definition: strategy is a handful of decisions that drive or shape most of a company's subsequent actions, are not easily changed once made, and have the greatest impact on whether a company meets its strategic objectives.

To be specific, this handful of decisions consists of selecting the company's strategic posture, identifying the source or sources of competitive advantage, developing the business concept, and constructing tailored value delivery systems.

Let us look at each of these decisions in detail.

Strategic posture

Depending on the extent of its ambition, a company can adopt one of three strategic postures: adapting, shaping, or reserving the right to play.

Adapting is the most common choice. A company analyzes its environment and then commits itself to a set of actions that conform to that environment. Although different levels of uncertainty might require different actions, the

mind-set is always one of seizing known opportunities and responding to known threats.

Shaping means attempting to change the environment to benefit the firm. Shapers invent entirely new products for which demand is only latent, alter the basic structure of their industry, or develop entirely new ways to compete. They believe they can influence the commercial world so profoundly that a detailed analysis of their current environment is scarcely relevant. This belief may rest on the power of an idea or on consistently superior capabilities. Either way, shapers depend on their own ability to change their external circumstances.

Shaping turns out to be attractive in some pretty counterintuitive cases. In highly uncertain environments, for instance, one would normally be tempted to hedge and avoid commitment. Yet for some strong players, this might be the best time for a bold move. Imagine a group of frightened children lost in a forest. The best strategy might be for the biggest kid to shout, "I know the way. Follow me!" Even if that kid didn't really know the way and it took hours to get out of the forest, the group would stay together. Similarly, if there is uncertainty about the direction of an industry, a bold shaping posture may be the best option.

That said, shaping isn't always advisable. Of the three postures, it offers the highest reward but also the highest risk. It is difficult to create massive wealth without being a shaper; think of the steel and railroad barons of the 19th century, Thomas Edison, Microsoft, and Netscape. But think too of Zap Mail, Microsoft Network, Betamax, and the English Channel Tunnel.

Reserving the right to play, the final posture, is a noncommittal one that consists of doing the minimum required to keep open the possibility of becoming a strong player later. It is not the same thing as taking no action at all; rather, it is an investment in learning.²

Underlying these three postures are fundamental differences in mindset. However, it would be wrong to oversimplify; companies like Microsoft seem able to blend elements of all three, and a company's choice of posture may change as conditions do. In general, though, most companies should aim to develop a single dominant posture.

Competitive advantage

Earlier, we noted three different bases of competitive advantage: structural advantage, frontline execution, and insight coupled with foresight. Each, of course, has many subvariants, such as core competencies, time-based

²See Mehrdad Baghai, Stephen C. Coley, and David White with Charles Conn and Robert J. McLean, "Staircases to growth," *The McKinsey Quarterly*, 1996 Number 4, pp. 38–61.

competition, and hustle. And new sources of competitive advantage may well emerge in the future. Although companies have many tools for selecting a source of advantage, they seldom realize how this choice can "lock them in" in unexpected ways.

A structural advantage comes about when, for structural reasons, competitors cannot copy a company's value proposition. The company is then necessarily locked into a particular set of customers or needs. If these change, the strategy may become obsolete.

Frontline execution strategies are usually even more locked in, committing an entire organization to adhere to a set pattern of performance. One company's program to build execution skills incorporated 65 separate subprograms to change its organization structure and its hiring and pay practices and to introduce new information systems, policies, and procedures. Not surprisingly, the company had little flexibility to adjust its strategy if conditions changed.

Insight and foresight might appear to be a more flexible basis for competitive advantage, since they do not entail locking a company into a single value proposition in terms of its products or markets. However, there is often lockin at the input level: a company that is dependent on one source of insight can be vulnerable if it becomes less valuable. Moreover, companies can create wealth only if enough customers buy their goods or services, so insight and foresight must usually be combined with structural advantage or frontline execution if they are to create value.

Business concept

Translating postures and sources of advantage into specific strategic decisions involves more than simply choosing your positioning. Any complex business concept will probably be constructed from four types of building blocks: big bets, real and financial options, no-regrets moves, and safety nets.

Big bets are major commitments to a course of action that may pay off hand-somely in some situations but produce dismal results in others. Real and financial options give a company flexibility, either financially or operationally. Financial options are well understood. Real options are investments, in tangible capital goods or operating expenses, that are made to learn more or to create flexibility (for instance, installing machinery that can work on a variety of raw materials). No-regrets moves make sense no matter what eventually happens. And safety nets are options specifically designed to protect a company against a big bet going bad.

Consider the case of a large specialty chemical company that faced uncertainty over which of two new technologies its industry would accept. If

the company had decided to make a major investment in one of the two, it might have been able to convince other players that its choice was superior and so shape the industry's technology base. This constituted a big bet: if the company failed to convince the others, its plant would be stranded. It could have complemented the bet with no-regrets initiatives, such as reduced costs and programs to improve sales, and added a safety net provision by planning to retrofit the second technology if the bet proved wrong.

The management at this company actually chose a strategy consisting of several real options: it formed an alliance with a new entrant using one of the new technologies while retrofitting several of its own small plants with the other. It took several no-regrets measures but didn't need a safety net.

Tailored value delivery systems

Big bets, real options, and so on are the building blocks from which new strategies are assembled. For each of these building blocks, companies need to construct separate value delivery systems. Imagine that a company facing a choice between two technologies elects to buy real options to cover both of them. Real options, unlike financial options, are investments in organizations and people. When these options turn out to be poor, a significant human and organizational cost is attached to unwinding them. Thus, strategies capable of dealing with the complexities of today's business environment are likely to call for the ability to create, grow, and manage multiple value delivery systems simultaneously.

Evolving strategy

Besides making the four strategic decisions outlined above, managers must learn to recognize the dynamics inherent in every situation and manage the building blocks of strategy effectively over time.

Traditionally, strategic management has meant little more than staying the course. Today, however, it means actively managing the way strategy unfolds month after month, year after year. That might entail drawing up contingent road maps in which the attainment of specific milestones clarifies the right strategy; it might equally mean recognizing that strategy will have to evolve as industry conditions do.

Just as the new framework changes what is required of strategy, it changes the strategy development process—especially who actually develops strategy and when they do it. Where there is little uncertainty, and structural advantage is critical (for instance, capacity decisions in the chemical industry), a traditional strategy development process, led by senior line management and conducted annually, can work well. In industries with low levels of uncertainty where frontline execution is the source of differentiation, bottom-up processes could be the right choice.

By contrast, where uncertainty is high, weblike structures are in the ascendant, or a company aspires to be a shaper, the strategy development process will probably need to be totally revamped. In fact, strategy development might not be a separate process at all. Instead, direction setting by the CEO or business leader would be combined with extremely short communication lines to the workers in the marketplace and with real-time rather than periodic adjustment of the strategy.

How does this new approach to strategy relate to concepts that have been proposed by others? We believe that, like the traditional model, most of these concepts are appropriate only in specific situations within the broader picture (Exhibit 4). The customer retention framework, for example, is really valid only in frontline execution industries with limited uncertainty. Other companies that base their strategy on customer retention will be focusing on minute improvements to a value proposition that competitors could

EXHIBIT 4

Comparison with other strategy concepts

***	Structural advantage	Frontline execution	Insight, foresight	Levels of uncertainty
	Traditional microeconomics	Customer retention	Stretch and leverage	1. Useful prediction
		Hu: Core	stle Opportunity recognition	2. Discrete scenarios
	Increasing	competency execution	Learning organization	3. Continuous uncertainty
	returns			4. True ambiguity
Basis of competition				

blow away if the environment changed.

We have examined more than 25 separate strategy concepts proposed over the past few years. Close examination of any of these strategies reveals how their underlying assumptions limit the circumstances in which they can be used. Consequently, strategists should be familiar with all of these concepts but

not biased toward any of them. The focus should be narrowed to a specific submodel only after it has been determined which strategy is most appropriate to the situation. In today's diverse business world, strategists must take into account a wider range of industry structures and bases of competitive advantage, as well as a higher degree of uncertainty. Admittedly, this is more complex than looking for keys under a guru's lamppost. But if any area of business deserves the extra effort, surely it is strategy.