NORTH-HOLLAND

From Scenario Thinking to Strategic Action

IAN WILSON

ABSTRACT

Scenarios are not an end in themselves. They are a management tool used to improve the quality of executive decision making. However, experience shows that using scenarios in this way proves more difficult than developing them. This article examines the causes of this implementation problem and suggests ways of overcoming the cultural bias toward single-point forecasting. Starting with a clear-cut decision focus for the scenarios, the author develops a primer or step-by-step methodology for moving from scenarios to strategy, outlining four different approaches. He suggests that only after a great deal of practice will managers be able to move from this elementary approach to a more intuitive and insightful use of scenarios as a guide to strategy. © 2000 Elsevier Science Inc.

Introduction

One day in the fall of 1976 I arranged a meeting between Pierre Wack, who at that time headed Royal Dutch/Shell's Business Environment component, and some of my colleagues in General Electric's strategic planning staff. The focus of our discussion was to be the role of scenarios in corporate planning.

At that time, GE had, arguably, the most elaborate and sophisticated strategic planning system in the corporate world, and Shell was enjoying an international reputation for its pioneering scenarios work. Yet in each case something was missing. Wack was convinced that his scenarios needed a tighter linkage to strategic planning and decision making if they were ever to engage operations managers seriously and continuously. And GE, still shaken and puzzled by the fallout from the first "oil shock," needed to ground its strategy in an assessment of the future that acknowledged, more explicitly, the inherent uncertainties that then marked the future business environment. The two parties thus came to this discussion from differing points of view, but focused on the same central need: linking perceptions about the future to current decisions.

This meeting marked a turning point in my recognition of the critical importance of strengthening the connection between scenario development and strategic action. From this point forward I recognized that, although developing coherent, imaginative and useful scenarios is certainly important, translating the implications of the scenarios into executive decisions and, ultimately, into strategic action was the ultimate reason and justification for the exercise.

IAN WILSON is the Principal, Wolf Enterprises, San Rafael, California, (formerly in strategic planning at General Electric and a management consultant with SRI International).

Address correspondence to I. Wilson, Wolf Enterprises, 79 Twin Oakes, San Rafael, CA 94901 (Tel.: 415-454-6062; Fax: 415-457-8441; E-mail: jason415xx@aol.com).

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Cultural Barriers to Implementation

Scenarios are not an end in themselves. They are a management tool to improve the quality of executive decision making. Yet experience shows that actually using scenarios for this purpose turns out to be a more perplexing problem than the scenario development process itself. As in the larger domain of strategy, implementation—execution—turns out to be the crucial issue.

The causes of this implementation problem, in part practical and procedural, are still largely cultural and psychological. The planning culture in most corporations is still heavily biased toward single-point forecasting. In such a context, the managers' premise is, "Tell me what the future will be; then I can make my decision." So their initial reaction, when confronted with the apparent emphasis in scenarios on "multipoint forecasting," is likely to be one of confusion and disbelief, complaining that three (or four) "forecasts" are more confusing, and less helpful, than one. The fact that this is a misperception of the nature and role of scenarios does not in any way lessen the implementation problem.

However, the major cultural barrier to scenario implementation stems from the way we define managerial competence. Good managers, we say, *know* where they are, where they're going, and how they'll get there. *We equate managerial competence with "knowing,"* and assume that decisions depend on facts about the present and about the future. Of course, the reality is that *we have no facts about the future*. In a 1975 presentation to the American Association for the Advancement of Science (AAAS), I highlighted this problem in the following way: "However good our futures research may be, we shall never be able to escape from the ultimate dilemma that all our knowledge is about the past, and all our decisions are about the future."

Scenarios face up to this dilemma, confronting us with the need to acknowledge that we do not, and cannot, know the future. In the most fundamental way, scenarios seek, as Pierre Wack put it, to change our "mental maps" of the future. But, in doing so, scenarios also may seem to challenge the way we define managerial competence. That is, by acknowledging uncertainty, scenarios underscore the fact that we cannot know the future, and so we perceive them as challenges to our presumptions of "knowing," and thus of managerial competence. And because few, if any, corporate cultures reward incompetence, managers have a vested interest in not acknowledging their ignorance, and so in resisting the intrusion of scenario planning into traditional forms of executive decision making.

Dealing with the Dilemma

A starting point for dealing with this dilemma is to establish a clear-cut "decision focus" for every set of scenarios. At SRI International, we insisted that the first step in the scenario process was *not* a review of the changing forces affecting the business environment, but rather agreement on the strategic decision(s) that the scenarios should be designed to illuminate. While it is true that scenarios can also be used as a learning tool to explore general areas of risk and opportunity, this use normally leads to the development of more focused scenarios before decisions are taken. This crucial step establishes, at the outset, that the ultimate purpose of the scenarios is not just to develop plausible descriptions of alternative futures—not even to redraw our mental maps of the future, important as that is—but rather to help executives make better, more resilient strategic decisions. By tying scenarios to needed decisions, we effectively link them to specific planning needs, and prevent the process from straying off into overly broad generalizations about the future of society or the global economy.

Usually, the right decisions on which to focus decisions are strategic rather than tactical. This is because scenarios normally deal more with longer term trends and uncertainties, often with a 5- to 10-year time horizon, rather than short-term developments. Virtually any decision or area of strategic concern in which external factors are complex, changing, and uncertain is a suitable target for the scenario process. However, I have found that the narrower the scope of the decision or strategy (a specific investment or market entry decision, for example), the easier the scenario construction—and interpretation—will be. Developing scenarios for broad strategic concerns—the long-range positioning of a diversified business portfolio, for example—is more difficult.

A word of caution is needed at this point. While clarifying the strategic focus of the scenarios is a critical first step, it is equally important to note that this is not the time for strategizing. Decision makers, particularly senior executives, have a natural impatience with analysis and a tendency to want to "cut to the chase." On many occasions I have had to check this otherwise praiseworthy tendency toward action so that the context for action—the scenarios themselves—can first be established. Once executives see that the process *both begins and ends* with an emphasis on action, they are more easily persuaded of the true value of scenario planning.

What *Not* to Do

Agreeing that the usefulness of scenarios depends upon their ability to influence executive action is a good first step because at least it focuses attention on what would otherwise be a potential problem. However, it leaves unanswered the questions: What do we do with scenarios once we have developed them? How do we translate what we learn from them into action? Before attempting to answer these questions, there are two things that we should *not* do.

First, we do *not* develop a complete strategy for each of the scenarios, and then by some means—maybe by applying the test of discounted cash value—select the one that appears to give the greatest promise of success and profitability. I know of no management team that would willingly undertake to go through a full-blown strategy development exercise two or three or four times (however, many scenarios have been developed). Such a course would more likely lead to "paralysis by analysis" than to constructive action. And, in any case, it would be based on a further misunderstanding of scenario planning: the real aim is to develop a resilient strategy within the framework of alternative futures provided by the scenarios.

Before proceeding, a word of explanation—and caution—is needed at this point. In a number of places in this article I refer to the objective of scenario planning as being the development of a resilient strategy. Now, it should be obvious that resilience is not the only quality to be sought in a strategy; and, taken to an extreme, resilience could mean little more than the lowest common denominator of scenario-specific strategies. At a time that calls for bold, even radical, action in many markets, such an interpretation would be a prescription for mediocrity at best, extinction at worst. My point is, rather, that, before taking bold steps, the strategy should be tested against a variety of scenarios so that the management team is forewarned of potential vulnerabilities. Resilience can then be built into the strategy, *not* by reducing its force or boldness, but rather by "hedging" or contingency planning.

The second thing that we do not do is assign probabilities to the scenarios and then develop a strategy for the "most probable" one. Of course, in saying this, I am taking a controversial position; however, please take confidence from the fact that it is a position that Pierre Wack shared. Probability has more to do with forecasts than with scenarios; and scenarios are not forecasts, for one cannot, reasonably and at the same time, "forecast" three or four quite different futures. Scenarios, as a collection of futures, are intended to establish the boundaries of our uncertainty and the limits to plausible futures.

However, I recognize that there is a very powerful human tendency, born of past experience and culture, to assign probabilities at the end of the scenario process. Every individual ends up with his or her own private assessment of probability; and it is almost certainly better to bring these assessments out into the open for group discussion than to leave them suppressed in individual minds. Indeed, doing this usually serves to underscore the wide diversity of opinions—and the consequent foolishness of trying to reach some sort of consensus on this matter. However, whichever course of action one elects—to engage in this group assessment or not—the critical point is to avoid playing the probabilities game to the point of focusing on one "most probable" scenario to the exclusion of the others. To do so would negate the whole value of the scenario planning exercise.

What to Do

Using scenarios to make strategic decisions requires considerable skill and sophistication; and these qualities take time to acquire. Initially, therefore, any organization experimenting with scenario planning needs some sort of a template, a primer, or step-by-step approach to moving from scenarios to strategy. Some critics will protest that this approach trivializes strategy development, substituting analytical structure for intuitive insight. However, in defense of this utilitarian approach, consider the analogy of learning to play the piano. The beginner has to learn the notes, practice scales, and play rhythmically, paced by a metronome. Only after mastering technique can the piano player perform with feeling and insight. So, too, the beginning scenario player needs to learn some basic techniques that will help to bridge the gap between scenarios and strategy before graduating to a more sophisticated approach.

In this spirit, I offer the following primer of four approaches to this problem, ranging from the most elemental to the more sophisticated.

SENSITIVITY/RISK ASSESSMENT

This approach can be used to evaluate a specific strategic decision such as a major plant investment or a new business development drive. Here, the need for the decision is known beforehand: the question, therefore, is simply whether or not to proceed, after assessing the strategy's resilience or vulnerability in different business conditions.

A step-by-step approach first identifies the key conditions (such as market growth rate, changes in regulatory climate, technological developments) that the future market or industry environment would have to meet to justify a "go" decision, and then assesses the state of these conditions in each scenario. It is then possible to compare the scenario conditions with the desired future conditions, and to assess how successful and how resilient or vulnerable, a "go" decision would be in each scenario. Finally, it is possible to assess the overall resilience of a decision to proceed with the proposed strategy, and to consider the need or desirability of "hedging" or modifying the original decision in some way in order to increase its resilience.

This approach provides a relatively straightforward application of scenarios to decision making, using a series of descriptive and judgmental steps. However, it depends on having a very clear and specific decision focus, one which lends itself to a "go/no go" decision.

An illustration of this approach was provided by a paper company confronted with a decision on whether or not to invest $600 million in a new paper-making facility. The company did not normally use scenarios in its strategic planning, but decided that they would be useful here, given the long life span (30–35 years) of the plant and the corresponding range of uncertainties regarding future electronic technology development, consumer values and time use, prospects for advertising, and general economic conditions.

The scenarios showed, as one might expect, vastly different levels of demand growth, but similar patterns of eventual decline, with the timing of key threats remaining a critical uncertainty. Playing out the investment decision in these different environments suggested that only in the most optimistic conditions would the company meet its "hurdle rate" for return on investment. As a result, the executives decided on a more incremental approach to the investment, significantly scaling down the initial plant size.

STRATEGY EVALUATION

Another relatively straightforward role for scenarios is to act as "test beds" to evaluate the viability of an existing strategy, usually one that derives from traditional single-point forecasting. By playing a companywide or business unit strategy against the scenarios it is possible to gain some insight into the strategy's effectiveness in a range of business conditions, and so to identify modifications and/or contingency planning that require attention.

First, it is necessary to disaggregate the strategy into its specific thrusts (e.g., "Focus on upscale consumer market segments," "Diversify into related services areas") and spell out its goals and objectives. Then it is possible to assess the relevance and likely success (in terms of meeting the desired objectives) of these thrusts in the diverse conditions of the scenarios. Assessing the results of this impact analysis should then enable the management team to identify: (a) opportunities that the strategy addresses and those that it misses; (b) threats/risks that the analysis has foreseen or overlooked; and (c) comparative competitive success or failure.

At this point, it is possible to identify options for changes in strategy and the need for contingency planning.

This approach offers a natural and relatively simple first use of scenarios in a corporate strategic planning system. Assessing an existing strategy requires less sophistication than developing a new strategy; nevertheless, assessment provides a quick demonstration of the utility of scenarios in executive decision making by identifying important "bottom-line" issues that require immediate attention.

A large department-store chain introduced scenarios this way into its strategic exploration of future patterns of change in the economy, consumer values, life styles, and the structure and operations of the retail industry. The company used these scenarios in three distinct ways: (1) evaluate the likely payoff from its current strategy; (2) assess and compare the strategies of key competitors (note: this was an interesting—and useful—application of scenario planning, assessing the competitors' as well as one's own strategy); and (3) analyze retail strategy options to identify the most resilient ones for possible inclusion in the company's strategy (the company did, in fact, expand greatly into specialty stores as a result of this exercise).

STRATEGY DEVELOPMENT (USING A "PLANNING-FOCUS" SCENARIO)

This approach is an attempt to bridge the "culture gap" between traditional planning that relies on single-point forecasting and scenario planning. Basically, it consists of selecting one of the scenarios as a starting point and focus for strategy development, and then using the other scenarios to test the strategy's resilience and assess the need for modification, "hedging" or contingency planning.

The steps involved in this approach are as follows: (a) review the scenarios to identify the key opportunities and threats for the business, looking at each scenario in turn and then looking across all scenarios (to identify common opportunities and threats); (b) determine, based on this review, what the company should do, and should not do, in any case; (c) select a "planning focus" scenario (usually the "most probable" one); (d) integrate the strategic elements identified in step b into a coherent strategy for the "planning focus" scenario; (e) test this strategy against the remaining scenarios to assess its resilience or vulnerability; and (f) review the results of this test to determine the need for strategy modification, "hedging," and contingency planning.

It should be obvious that this approach flies in the face of my earlier assertion that scenarios should not deal in probabilities. And, while the other scenarios are not discarded, there is still the danger that this approach may close executives' minds to "unlikely" (which often means "unpleasant") scenarios and so limits their search for strategy options. However, the approach can be justified as a useful intermediate step (between traditional and scenario planning) in weaning executives away from their reliance on single-point forecasting. It does not commit the ultimate sin of disregarding the other scenarios entirely; and, in its step-by-step process, it does address many of the key questions that scenario-based strategy should ask.

Shell Canada used this approach when it introduced scenarios into its strategic planning system in the early 1980s. As a member of the Royal/Dutch Shell Group, its executives were well aware of the strict interpretation of scenario-based planning, but felt that this modified approach would help the company ease into the new process by making this concession to traditional thinking. In fact, the discussion of probabilities revealed so much uncertainty in executive opinion about future trends, that two scenarios—each with dramatically different drivers—were selected as the "planning focus." The company then proceeded to structure its strategic positioning in answer to three questions: (1) What strategies should we pursue no matter which scenario materializes? (2) What strategies should we pursue if either of the "planning focus" scenarios materializes? (3) How sensitive are base strategies to variations in assumptions under contingent conditions?

In fact, in the end, Shell Canada did succeed, both in bridging the gap between the old and new approaches to strategy development and in preserving the value of considering, and planning for, different business conditions.

STRATEGY DEVELOPMENT (WITHOUT USING A "PLANNING-FOCUS" SCENARIO)

In this approach, executives take all scenarios at face value without judging probabilities, and aim for the development of a resilient strategy that can deal with wide variations in business conditions. The step-by-step process in this approach considers: (1) identifying the key elements of a successful strategy (such as geographic scope, market focus, product range, basis of competition); (2) analyzing each scenario to determine the optimal setting for each strategy element (e.g., what would be the best marketing strategy for Scenario A? for Scenario B?); (3) reviewing these scenario-specific settings to determine the most resilient option for each strategy element; and (4) integrating these strategy options into an overall, coordinated business strategy.

Without doubt, this is the most sophisticated—and demanding—approach, one that most closely approximates the goal of strategizing within the scenarios framework, and that makes optimal use of the scenarios in strategy development. It provides management with the maximum feasible range of choice, and forces careful evaluation of these options against differing assumptions about the future. It does, however, demand effort, patience, and sophistication, and works best when the decision makers participate directly throughout the process.

This was the case with a large European financial-services company in which the senior management team was, in effect, both the scenario- and the strategy-development team. After structuring scenarios around their perceptions of the critical uncertainties facing the business, they first identified the strategic opportunities and threats arising from these scenarios. They then used this framework to assess the company's current competitive position and prospective vulnerability. Their approach to strategy development then led them to the following steps: (1) first, to single out 11 key elements of a well-rounded strategy (e.g., product scope, alliances, distribution/delivery, technology); (2) second, to identify the optimal strategic option for each of these 11 elements in each of the four scenarios; and (3) finally, to select the most resilient option for each element, and to integrate the options into a coherent strategy for the company.

Conclusion

I have chosen to emphasize this one aspect of scenario planning—moving from the scenarios themselves to strategy development to action—because, in my experience, it is perhaps the most critical phase of the scenario process. More scenario projects fail because they have no impact on strategy and management decisions rather than because they were unimaginative or poorly constructed.

Moving from traditional planning to scenario-based strategic planning requires a transformation of corporate culture. Scenario planning is not merely a new planning tool, but rather a new way of thinking. Using scenarios on a one-shot basis requires much less investment than instituting them as an integral part of corporate planning. Many, perhaps most, of the problems in introducing scenario planning into an organization stem from a failure to recognize the magnitude and duration of the implementation effort that is required to use this technology to change the prevailing management assumptions.

Like scenarios themselves, this effort has to be tailored to the needs of the organization, but some requirements are constant: senior management commitment, communications, education and guidance, and practice, practice, practice. Like the piano player, the scenarios user will be able to progress from beginning exercises, as outlined here, to intuitive and insightful action only with time, patience, and practice.

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