

*A good deal of organizational planning . . . is like a ritual rain dance. It has no effect on the weather that follows. . . . Much of the advice related to planning is directed at improving the dancing, not the weather.*

—PROFESSOR BRIAN QUINN, DARTMOUTH UNIVERSITY

# Scenario Planning: A Strategic Alternative

**M**anagers like to think that they know what they are doing. Certainly, communities expect their professional managers to be prepared as the future arrives in a swirl of political, economic, and social issues. For years, many administrators have relied on strategic planning to prepare their organizations for what lies ahead. But some managers, both public and private, now realize that standard forecasting techniques alone cannot prepare them fully in a world in which little seems certain. Many have turned to a newer discipline, called scenario planning, to help bring the future into focus.

Properly constructed scenarios go beyond forecasts to communicate vividly the meaning and impact of events in a way that clarifies the message and captures the attention of decisionmakers. In form, scenarios are not unlike organized daydreams, structured to achieve specific purposes. Often, however, educated professionals find it easy to dismiss this method of thinking and any conclusions drawn from it; they have been trained to recognize good information as coming only from charts, tables, and graphs.

This belief is one reason why managers find it easy to feel comfortable with certain strategic planning techniques. Typically, they analyze sound historical data and make projections based on whether current trends are likely to continue. In this way, strategic planners ask, What is likely to happen based on the data? Because re-

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**Gordon C. Robbins**

liance on historical data alone can prove to be a weakness in a rapidly evolving present, scenario planners respond, What if the data are made obsolete by changing conditions?

In his ground-breaking book, *The Art of the Long View*, futurist Peter Schwartz cites an instructive example of how relying solely on historical data can have unexpected results. In the mid-1970s, the U.S. Census Bureau forecast that births in the United States would continue at the early '70s rate of 3 million annually. Influenced by this information, education officials around the country began to cut back on expansion and close schools. A scenario approach might have considered what would happen when the baby boomers started having babies themselves. Indeed, the birth rate began to rise again in 1979. Reliance on this data and a failure to foresee a rising immigration rate in California made it necessary for that state to build a classroom a day for several years. Clearly, a planning method that looked more to the future would have been helpful.

### **A Benefit for Managers**

Scenarios first saw action in World War II as the Allied forces imagined possible enemy strategies and prepared alternative plans. In the 1970s, corporate planners at Royal Dutch/Shell dusted off the techniques and refined them to predict and describe the full ramifications of the coming energy crisis. Properly forewarned, the oil company used its advantage to become the second largest in the world (after Exxon) in the space of a few years. Since then, many of the world's leading institutions and companies have used scenario planning techniques to supplement more traditional forecasting methods. Local government managers can benefit from these techniques as well.

Although it may sound exotic, scenario planning is something we do

every day. It is simply the creation of stories about how we think certain situations will unfold. Imagine a person driving home from work today. As she enters her own neighborhood, she sees a ball lying in the road. Immediately, she applies the brakes and begins to look around.

Without realizing it, she has created and responded to a scenario that might be entitled "Kids in the Street." Although simplistic, this event contains all the elements of a more complex scenario. There was a *focal issue* (getting home), *driving forces* (children's desire to play and the motorist's desire for safety), *predetermined elements* (children live nearby and it is after school), and *critical uncertainties* (are there children playing now?). With these elements, a *plot* was constructed (a child could run in front of the car) and *action* (slowing down) was taken. The driver also looked around for *leading indicators* (children running) as she decided what to do next.

### **The Basic Components**

It would be nice if all the situations that managers faced were as clear-cut and easily defined as the one described above. Scenario planning helps clarify many complex issues by reducing them to several basic components.

The *focal issue* is the subject around which alternative scenarios will be constructed to determine an appropriate course of action. Usually, a focal issue takes the form of a question like "Should we spend \$500,000 this year on a new fire engine?"

*Driving forces* move the scenario forward. They come both from within an organization, like labor issues, and from without, like federal regulations. Most driving forces belong to one of five categories: *social, economic, political, technological, or environmental*. At various times, local govern-

ments are subject to influence from each of these areas, and it often helps simply to run down the list. Any well-informed administrator will have an intuitive feel for the source of pressure on a particular issue.

*Predetermined elements* may be described as those components we are certain about. They usually come under one of several headings. *Slow-changing phenomena* include issues like deterioration in infrastructure or changes in demographics. *Constrained situations* are those almost certain to exist in the future, such as legal boundaries and scheduled bond payments. *Things in the pipeline*, like the number of baby boomers approaching retirement, are likewise certain because they already exist, and it is only a matter of time until they evolve to a particular stage. And *inevitable collisions* are those forces destined to conflict with one another. A frequently cited example is

### **Further Reading on Scenarios and Strategic Planning**

Because scenario planning functions best as a supplement to strategic planning and not as a replacement for it, there has not been a great deal published specifically on scenario planning. The *Art of the Long View* by Peter Schwartz (© 1990, Doubleday) is an insightful book devoted solely to the topic.

Some texts on strategic planning include discussions of scenario planning and related methods. The author suggests *The Portable MBA in Strategy* by Fahey and Randall (© 1994, John Wiley & Sons); *Applied Strategic Planning* by Goodstein, Nolen, and Pfeffer (© 1993, McGraw-Hill), and *Competitive Strategy* by Michael E. Porter (© 1980, The Free Press).

the desire of preservationists to limit development in historically sensitive areas.

*Critical uncertainties* are items that are not known for sure. They often can be discovered by questioning assumptions about predetermined elements. For example, statisticians may be fairly certain about the number of baby boomers eligible for retirement in a given year but have no way of knowing how many will opt to do so. Managers might wonder, for instance, how many of the potential retirees will avail themselves someday of senior adult programs and other municipal services.

Using the building blocks described above, a *plot* can be constructed that describes how the various forces might behave and what the results could be.

### **The Plot Line**

A given set of forces may behave differently depending on the circumstances. A good scenario planner will explore the two or three most likely alternatives. Attempts to construct and evaluate more than a few scenarios at once often lead only to confusion. Whatever the circumstances surrounding an issue, scenarios typically fall into four main categories of plots.

*Winners and losers* is a descriptive name for a plot line in which resources or opportunities are limited and a positive outcome for one party means a negative result for the others involved. Only one person can be mayor. Only one bidder can be awarded a contract. Others, by definition, lose.

*Challenge and response* is a common plot line in popular fiction, in part because it is so prevalent in the real world. In it, the protagonist faces an obstacle that must be overcome before a reward or goal can be achieved. For

example, limited infrastructure challenges community growth. The city of Farmers Branch, Texas, in the Dallas metropolitan area, faced such a challenge when it became clear that a lack of sanitary sewer capacity limited growth on the commercial east side. When Farmers Branch joined with the neighboring town of Addison, the two entities formed the North Dallas Water Supply Corporation and overcame myriad obstacles to fund and build a massive sewer interceptor system running 50 feet below the city.

Plots based on *evolution* involve long-term changes in a particular direction. The aging of a community's population is an example of an evolutionary plot line. So is the effect of industrialization on the environment. Initially, these story lines are hard to spot because of the extended time frames involved, but they eventually will have an effect. Similarly, *revolution* can be difficult to identify because it comes about unexpectedly. Witness the power swap in Congress this past November: what ramifications might this development have on the local level?

After scenarios have been constructed and their impacts on the focal issue determined, it is wise to select *leading indicators* to monitor. By knowing what to watch for, whether it be changes in interest rates, increases in water usage, or any other identified factor, planners can tell which scenario is coming to pass and can decide to take actions in advance.

### **Creating a Scenario**

Actually creating a scenario requires bringing these building blocks together in a process of insight and discovery. Consider an attempt to answer such a hypothetical focal-issue question as "Should the local government purchase a new, expanded computer system for the library?"

In the exploration of this issue, it

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may become clear that the primary driving force is the accelerating spread of technology sweeping the country and the world. Residents and businesses in the community increasingly are depending upon the web of information systems available via computer. Libraries—essentially repositories of information—are vital nodes and points of access to the network.

The planning team might imagine two principal scenarios. In the first, the local government catches the technology wave and rides it to establish a computer system that citizens and businesses can access remotely. Once aboard, users not only can view the library catalog but, with future expansion, also can give and receive information and request services from any department at city hall. This service enhancement will make it easier for taxpayers to do business with local government and will represent a forward-thinking mind-set that impresses corporations and individuals seeking to relocate. This scenario already is unfolding in some communities in California and elsewhere.

In the second scenario, the local government fails to upgrade its computer system. Citizens continue using the library as they always have used it, though some residents—a few at first and many later—begin to turn to other, more convenient sources of information via their home and business computers. Neighboring communities willing to embrace the technology attract residents and businesses that recognize the added value implicit in the system. The local government eventually will be forced to develop such capabilities, of course, but it may be playing catch-up for a long time.

If these scenarios sound simplistic, that is good. Scenarios are designed to simplify complex issues into short narratives that can be communicated easily to administrators, councilmembers, and other decisionmakers. Do not be deceived by this apparent lack of sophistication. A planning team

developing a scenario like the library example will spend many hours building the frameworks of the scenarios, then still more time filling in details and working to simplify the final product for presentation.

### **The Eight Steps**

The actual practice of scenario building can be broken down into eight steps, as may be demonstrated with the theoretical library scenario.

**Step 1. Identify the focal issue—the decision that has to be made.** Depending on whether the planning is taking place at the departmental level or for the entire organization, there will be different perspectives and situations that must be addressed. If a manager catches himself thinking about a particular decision on the way to or from the office, that issue is probably one that he should explore.

**Step 2. List key factors in the environment.** These factors are the predetermined elements and critical uncertainties that will influence the decision. This list should include such perhaps unexciting but still important information as the cost of purchasing the new library computer system versus the cost of maintaining the old one.

**Step 3. List the driving forces.** In the case of the library, the overwhelming driving force is advancing technology. Secondary forces are, on the one hand, the citizens' increasing desire for expanded and accelerated information delivery and, on the other, the local government's commitment to provide quality services to its customers.

**Step 4. Rank the key factors and trends.** The idea here is to pick out the driving forces and factors that are the most important to the issue and the most uncertain. Remember,

predetermined elements are unchangeable by definition and will not affect the development of the scenario at this point.

**Step 5. Select the plot lines that best fit the information.** The ranking exercise in Step 4 gives some idea of the points on which the stories will hinge. These points will be important to decisionmakers. In the library scenario, the pivotal issue might be whether the upgrade is to be viewed as a cost or an investment. The future reputation and competitiveness of the local government may be highlighted as among the assets that are at stake. *Winners and losers* and *challenge and response* both seem to suggest themselves as suitable plot lines in this situation.

**Step 6. Flesh out the scenarios.** Having identified the issues that are important and the direction in which they are likely to turn, put the pieces together to form a narrative that communicates the message so it is easily understood. It helps at this point to give each scenario a descriptive and memorable title. Having a handle by which to grasp each idea facilitates later discussion. The two library scenarios, for instance, might be called "Catching the Wave" and "High and Dry."

**Step 7. Develop the implications.** What does each story mean to the local government? In the case of the library computer system, one scenario was clearly more desirable than the other, but this is not always the case. Sometimes, additional discussion, using the scenarios as guides, is needed to determine the desired direction.

**Step 8. Select the leading indicators.** Knowing what to watch for will provide feedback on whether the scenario is unfolding as predicted. In the library example, requests by patrons for on-line access could be

tracked as an indicator of demand. Development of similar networks in surrounding areas would confirm that other local governments are catching the information wave.

### **Put Aside Any Predetermined Notions**

Perhaps the most important and difficult requirement in building scenarios is to keep an open mind. This means two things. First, stay well informed on any subject that could affect the organization. Second, avoid the temptation to become attached

to a particular scenario outcome because it appeals emotionally, financially, or for some other reason. In scenario planning, it is vital to consider any likely course of events and to put predetermined notions aside.

Scenario planning is not a crystal ball; no planning method is. Its value lies in its challenge to look ahead. And, as uncomfortable as that challenge can be, the choice seems clear: look ahead or be left behind. **□**

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### **A University President's View**

"No institution today can afford to have a caretaker at its helm. The only way to take care is to take action." With these words, James E. Kirby, president *ad interim* of Southern Methodist University (SMU), clarifies the motivation behind his use of scenario planning to guide SMU through the "active future" he sees ahead.

Explaining the value of this planning method, Kirby goes on to say: "Scenario planning makes several assumptions that challenge ordinary ways of thinking and planning. The first assumption is that the future does not necessarily resemble the past. The second is that long-range projections are unreliable except in periods of exceptional stability, and we are not in one. A third assumption is that folks really do not want to hear bad news in a forecast, and planners try to please the people who pay them to plan."

A university's mission is to prepare students to participate in the world. That mission makes it impossible for an institution of higher learning to ignore the sweeping changes taking place around the globe. Kirby points out that by the year 2000, New York and Tokyo will be the only "western" cities among the world's 10 largest. All others will be in countries we now consider the Third World. And by that time, Nigeria will be the fourth most populous country on earth, located in an Africa that still is largely unable to feed itself. Likewise, no one can ignore the explosive growth of the Pacific Rim economy and its impact on markets in America and Europe. But the real "demographic wild card," in Kirby's estimation, is AIDS: "It continues to spread with little hope in sight."

No public institution, whether university or locality, can afford to ignore the kinds of changes Kirby mentions. With the free flow of people and information around the world, and with the economic intertwining of almost all countries, it is unreasonable to think that geographic distance isolates our communities in any meaningful sense.

—Gordon C. Robbins

(Quotations extracted with permission from *SMU Magazine*, Fall 1994 issue. Original source: *The World and South Africa in the 1990s* by Clem Sunter.)