



## IMAGINING THE GREAT UNKNOWN

# Using Scenarios to Plan for Tomorrow

By MIKE ROSENBERG

**I**n these times of uncertainty, the only thing we can know for sure is that the future will be different from what we expect. How does a business leader deal with this?

One valid strategic approach is to develop business models and capabilities that are tremendously flexible, so that a company can change or pivot, depending on how things go. Such efforts can be effective.

Many firms, for example, have drastically lowered their break-even points and moved toward outsourcing aspects of their operations as a result of the recent economic crisis. While this may give them some additional flexibility,

there is a limit to how far this approach can go.

Especially in industries in which fixed assets with significant useful life spans factor heavily – such as energy, shipping, manufacturing and mining – new investments must remain viable for a period of at least 10 or 20 years. As such, managers must place relatively big bets on what they believe the future will look like.

Firms in services or retail have to contend with another set of issues. Developing new capabilities takes time, while consumer behavior changes constantly and at an ever faster pace. The media industry, for example, faces unprecedented change as a result of digitization,



but it is still far too early to tell what the industry will look like in the not-so-distant future.

Business planners may resort to forecasting, using formal statistical methods to estimate outcomes at some future point in time. But I believe that scenario planning is a much better tool for business leaders to use in order to deal with the uncertainties they face. This article will show you how.

### The Limits of Forecasting

Think of some of the truly game-changing tectonic shifts in the business landscape over the past several years: the explosion of smartphones, tablets, apps and the pervasiveness of social media platforms; the rise of China as a global economic powerhouse; or even the financial crisis of 2008-09. None of them was forecasted.

Forecasting is a person's best guess about the future. The problem with forecasting is that it assumes that the future can be predicted with some degree of certainty. Unfortunately, it can't.

Take the issue of climate change. The Intergovernmental Panel on Climate Change (IPCC) brings together scientists to review

and assess the most recent information available today, in order to try to identify potential environmental and socioeconomic impacts for tomorrow. In its 2007 Assessment Report – the latest available until the next report is published in October 2014 – the IPCC projected sea levels could rise by as much as 59 cm (23 inches) during this century.

The problem is that the planet is an extremely complex system. Positive or negative feedback loops might affect the Earth's climate much differently from any of our best projections. We might achieve an unexpected equilibrium, with relatively little impact on temperatures or sea levels. On the other hand, things might get hotter sooner. Indeed, an interim report published by climatologists asserts that the sea-level rise was underestimated, and Arctic melting might be happening faster than the IPCC predicted.

Take another timely example that is frequently the focus of forecasting efforts: oil prices. Managers typically use formal valuation methods and tools to try to predict with a degree of certainty what prices will be like down the road, so they can allocate resources and invest accordingly. But as far as Royal Dutch Shell is concerned, applying standard forecasting methods to oil prices "has been very costly" and, to put it even more bluntly, "has failed" (see **Exhibit 1**).

Although forecasting methods do try to incorporate, or at least acknowledge, some level of uncertainty in their calculations, they are not very reliable guides for the long-term future. Computer-model forecasting has its place: It can be useful for making short-term budgetary decisions. But once you start projecting 50 or 100 years into the future, so many variables enter into the equation that your guess becomes as good as mine.

Instead, scenario planning offers a fundamentally different way of anticipating the future that makes it superior to forecasting. To start with, it has, at its heart, the idea that the future *cannot* be known.

Forecasting is predicated on "If X continues to grow at current rates," which assumes tomorrow's conditions and context will be pretty much the same as today's. The fact that this isn't the case is scenario planning's starting point. It's about thoroughly exploring what *might* happen, and engaging in specific pro-

## EXECUTIVE SUMMARY

**While business planners** often resort to forecasting to estimate outcomes at some future point in time, the author believes forecasting has serious limitations and is not a reliable guide for the long-term future. Instead, he recommends scenario planning as a superior way of envisaging the future, in order to help managers see the business environment more clearly and make better strategic choices.

Using the considerable experience of Shell in this area, he sets out a simple seven-step scenario planning process, which managers can use in one day or two half-day workshops. Doing this will bring organizational learning, challenge ex-

ecutive assumptions, broaden management perspectives and help everyone to see the business environment in which they operate as a complex, nonlinear system.

This article includes an interview with Angela Wilkinson, who spent a decade as a leading member of Shell's global scenario team. She shares from her own personal experience of using scenario planning, suggesting who and how many should be on the team, and how often scenarios should be revisited. "In today's world of uncertainty, it's not enough just to analyze situations," she says, hinting at a new approach she calls "collaborative futures."



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cesses to develop plausible alternative futures.

So, while not many people had ever heard of, let alone forecasted, apps and subprime lending, nor their profound impact on all our lives, such things had been imagined and discussed by some companies who had envisaged what *might* happen, rather than trying to predict it.

### Scenario Planning: How It Started

Royal Dutch Shell is widely acknowledged as being one of the first companies to use scenario planning effectively. For four decades, scenario planning has played a significant role in Shell's strategic decision-making processes, influencing its upstream and downstream investments.

In the late 1960s, Pierre Wack, a French executive based at Shell's London headquarters, was experimenting with unconventional ideas about "seeing the future," which seemed more the preserve of mystics than managers.

Wack and his team began by looking at the facts before them, but they didn't let those facts point them in straight lines to foregone conclusions. Instead, they used those facts as creative jumping off points to imagine different worlds, or scenarios, beyond what the facts said.

With no serious disruption in oil supplies since the Second World War, the facts said

there would be continued, sustained expansion and growth for years to come. Wack's team imagined something quite different: a changed geopolitical context, leading to a disruption in oil supplies, a subsequent rise in oil prices and various knock-on business effects.

Of course, this is exactly what did happen in 1973, when the Arab members of OPEC declared an oil embargo in protest against the West supporting Israel in the Yom Kippur War. Within weeks, the price of oil skyrocketed from \$3 to \$12 a barrel.

Thanks to scenario planning, Shell found itself one step ahead: Managers in different parts of the company had already made a number of strategic decisions and investments to diversify into other energies, such as coal and nuclear power, and to other oil fields in the North Sea, to be less dependent on the Middle East. Such measures enabled the company to emerge from the shock in relatively good shape.

This initial success lent credence to scenario planning, and the Shell team was empowered to take these ideas further. Since then, Shell has become a leading example of how an organization can use scenario planning successfully.

Besides Pierre Wack, a number of influential business thinkers have emerged from Shell over the years, including Peter Schwartz, whose books, *The Art of the Long View*, and more recently *Inevitable Surprises: Thinking Ahead in a Time of Turbulence*, have become required reading on scenario planning. It was during Schwartz's tenure in the 1980s that Shell anticipated the collapse of the Soviet Union and positioned itself for the eventual opening up of Russia and Eastern European markets nearly a decade before that actually happened.

Shell regularly publishes its scenarios ([www.shell.com/scenarios](http://www.shell.com/scenarios)). I use the publication "Shell Energy Scenarios to 2050" in teaching sustainability to MBA students and Executive Education participants at IESE Business School. Some of the ideas for this article are distilled from Shell's sophisticated work in this area.

This article is also based on my own professional background working in the automotive sector and offshore drilling industry, and my consulting work and custom programs developed for such companies as Faurecia, Gamesa, Henkel, J. Lauritzen and Rabobank.

While Shell is a good example, not all firms need to spend the time and resources that Shell

### ■ ABOUT THE AUTHOR

**Mike Rosenberg** is an assistant professor of Strategic Management at IESE where he teaches on the MBA and Global Executive MBA programs on issues related to strategy, globalization and sustainability. Between 2004 and 2009, he managed IESE's International Executive Education Unit and is currently the academic director for the Advanced Management Program in Media & Entertainment at IESE's New York Center.

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