

Creating Better Futures

The role of scenario planning in organisation innovation

INTRODUCTION

It is truly a pleasure to be here this morning. I was asked by the General Manager of AIM Lillian Lesueur to offer some reflections on the role of scenario planning in organisation innovation. The other thing I was asked to do was to be brief, so I will constrain my comments on this big topic to about 30 minutes. And then we will open the meeting for questions and comments.

My presentation has three aims: firstly, to discuss the challenges of organisation innovation, secondly to explain what is scenario planning, and thirdly, to show how you can use scenarios to create better futures for your organisation.

So what are scenarios? Scenarios are plausible, pertinent stories about the future. They are tools for learning, aids for strategic thinking, and challenges to conventional wisdom. To paraphrase George Bernard Shaw, the best scenarios emerge in discussions first as jokes and fancies, then as blasphemies and treason, then as questions open to discussion, and finally as established truths.

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Innovative organisations hold the key to our economic future

My message this morning is that innovative organisations hold the key to our economic future and the well-being of all Australians. The reform of our organisations—to make them more innovative—is now vital to our success in the knowledge-based economy.

Like many of you here today, having been trained in economics, I know the benefits of well-functioning markets. Much progress has been achieved over the past two decades reforming our industries and macro-economy, and driven through the efforts of far-sighted policy-makers here in Canberra. So my question is why not a revolution in ideas at the organisational level to respond to the challenges of the 21st century?

That hardy workhorse of the industrial revolution—the hierarchical organisation—looks surprisingly durable as we transition to a knowledge-based economy. But pressure on it is mounting. All too often we observe large organisations that resist new ideas, focus more on internal concerns than on the external stakeholder environment, and preserve boundaries that discourage collaboration.

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Recent data from Booz Allen and Hamilton point to the challenges that lie ahead if Australia is to improve the health of its organizations.¹ They surveyed employees of organizations around the world and analysed how well they measured up on four organizational building blocks—decision making, information sharing, motivation, and structure. Less than a third of Australian respondents registered their organisation as “healthy”. We are close to the bottom of the class.

1. FUNDAMENTAL CHALLENGES IN ORGANISATION INNOVATION

Before I explain how scenario planning works, we need to understand why it is needed. Barriers to innovation are deeply rooted in the nature of organizations; in particular, problems to do with organisation lock-in, failures of imagination, decision-making bias and the neglect of the long-term. Let's look at these in turn.

Barriers to innovation are deeply rooted in the nature of organizations

Lock-in problems

To prescribe by rules what employees must do in all potential future states of the world is impossible. Instead, organisations rely on a set of common norms, understandings, and “scripted” modes of interpretation. These substitute for explicit rules, and enable cooperation to be attained in ways that cannot be prescribed by contract. In other words, this set of non-contractual binding elements is the organisation’s “culture”.²

Organisations are most effective when their culture, structures and processes are internally coherent, and match their environment. When the environment changes however—for example, new economic and technological possibilities open up, or stakeholder values change—an organisation that is optimal in the current environment may become dysfunctional in the new environment. Yet its people may be reluctant to change the design. For once information channels and other organising elements are created; a sunk investment has been made that will constrain the organisation’s response to the new environment. The cruel fact is that the culture itself may even prevent the organisation from recognizing a change in the environment is occurring.

The last two decades has seen the rise of organizational cultures focused around efficiency, cost-effectiveness, and performance measurement.

Bengt Holmstrom an MIT Economics Professor, points out that this organising paradigm comes at a cost.³ Organisations with a bias toward more rigid rules and less discretion, and a tight focus on coordination and control of routine tasks, can be hostile to innovation in two ways: directly by restricting experimentation, and indirectly by screening out innovative personalities.

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On the subject of innovative personalities, Pierre Wack the pioneer of scenario planning at Shell during the 1960s and 1970s stressed the importance of what he called “remarkable people”.⁴ This phrase in French means not so much gifted or eccentric people, but people with unconventional insights about the world around them. Wack and the Shell planners cultivated their own network of “remarkable people”. Wherever Wack travelled he sought out people, inside and outside the company, who had a perspective to help overcome the lock-in problem.

Failures of imagination

The description failure of imagination was used by the US Government 9/11 Commission to describe part of why intelligence agencies such as the CIA and the FBI failed to foresee and prevent the events of September 11, 2001.⁵ Al Qaeda's new brand of terrorism presented challenges to U. S. institutions that they were not well-designed to meet.

Nonetheless, a spokesperson for the Bush administration in early 2004 stated that “nobody could have imagined that ... hijackers would intentionally crash hijackers usually want to live.” However, the intentional crash of EgyptAir Flight 990 by its co-pilot 1999, and a similar intentional crash of Pacific Southwest Airlines Flight 1771 by a disgruntled former airline employee in 1987, offered a precedent in history of persons crashing airliners.⁶ The future was foreseeable but no one foresaw it.

Decision making bias and the neglect of the long term

Possibly the biggest challenge for organisation planners today is to distinguish between a status quo option that is genuinely the right course and one that feels deceptively safe because of an innate bias.

Bengt Holmstrom argues that organisations tend to favour routine projects rather than innovation because the internal evaluation of the former is easier.⁷ By their very nature, innovative projects are:

Risky. There is a high risk of failure, but also prospects for extraordinary pay-offs

Uncertain. Many contingencies are difficult to foresee

Long-term. There are often numerous stages of development

Knowledge intensive. The effort and motivation of specific individuals is crucial

Idiosyncratic. The comparability of innovative projects with other projects is low.

In the face of these challenges, long-term commitment to innovation is paramount. As Mark Twain said: “we should be careful to get out of an experience only the wisdom that is in it—and stop there; lest we be like the cat that sits down on a hot stove lid. She will never sit down on a hot stove lid again—and that is well; but also she will never sit down on a cold one.”⁸

Scenarios encourage thinking to counter organisation biases in three ways

Firstly, scenarios provide a framework and process for thinking about change, uncertainty and opportunity that lies over the horizon. It’s an “outside in” approach of understanding the business environment. The scenario planning process enables a diversity of perspectives to be introduced in a structured way. It’s also a way to introduce external expertise into the planning process to overcome the lock-in effect.

Secondly, by educating decision makers about the alternative ways in which the future might unfold, it can help them to better prepare the organisation to respond and adapt. It’s possible to challenge conventional wisdom constructively, and enable the organisation to consider a variety of possible futures.

Thirdly since we cannot predict the future with certainty, scenarios help leaders adjust course in the light of events. The better the scenarios, the less frequent these surprises will be and the more successful the strategy.

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2. MASTERING THE LOGIC OF SCENARIO PLANNING

The core of the scenario process is that you research key drivers of change. You determine which are predictable and which are uncertain. You decide which uncertainties are most influential, and base the scenarios of the future on those uncertainties. Finally you spend time exploring the implications of those scenarios.

The building blocks of scenario planning

When developing scenarios, it is important to begin with a specific decision or issue that the organisation will need to think hard about. Here are some examples of focal issues:

- How should a global corporation re-shape its IT organisation over the next 5 years?
- Can we survive as a mid-tier player in a consolidating industry?
- What should our organisation's next generation of products and services look like?
- How should we prepare our managers for the disruptive changes ahead in our industry?

Frames of reference

Framing is the use of an overarching idea or a collection of ideas that organize perceptions of issues. A frame of reference can give a scenario a single general effect, and each scenario should aim to provide a different frame for thinking about the future.

As an example of the importance of framing, in the early 1980s IBM held its critical planning meeting to decide their PC strategy. A key focus of the meeting was the ten year forecast for the PC market, estimated to be 275,000 units p.a. by the end of the decade. In fact, actual PC industry sales turned out to be 60 million units p.a. IBM missed out on a potential \$250 billion of wealth creation! So what went wrong? It was a matter of framing. IBM's Frame of Reference was that people merely wanted "CPU power". But in reality, people wanted "control" through desktop computing to overcome the rigidities of mainframe computing. The lesson here is that the wrong mental maps were driving decisions and actions.

In the 1990s, IBM recognized the importance of framing. They brought in open-source revolutionary Richard Stallman to speak to its researchers at a time when its software business was built around the traditional proprietary software models. IBM has now built a successful business around the idea of open-source software.

Uncovering the assumptions – the "Official Future"

The classic approach to developing the organisation's strategy starts with a presumption: that with sufficient rigour, companies can predict the path to the future from the experience of the past. In this world, strategists make assumptions about trends in markets, funding requirements, technology, regulation, and so on. In effect they "assume away" most of the uncertainties.

The corporate strategy all too often ends up as an internally-driven reflection of what the organisation wants the world to look like. We call

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this the “Official Future”, and it is usually based on some form of extrapolation. For example, the Official Future may be predicated upon crucial, but unexamined assumptions such as:

“We understand our customers’ / stakeholders’ needs”. “There is no other competitive solution available”. “Only polished ideas should be funded”. “Our contract is water-tight”.

A key role of scenario planning is to tease out the implicit assumptions; then ask: what if we’re wrong?

Conflicts and Dilemmas

Scenarios aim to describe how conflicts and dilemmas will play out over the longer-term. In his 1934 classic *The Theory of Economic Development*, Schumpeter examined how entrepreneurial innovations disrupt the prevailing state of business affairs.⁹

Strategic change comes as a result of inherent conflicts and dilemmas in the existing models of organisation, for example of production and distribution. These contradictions might be over-served customers, under-served markets, products with too much functionality or too little functionality.

According to Schumpeter, “the problem that is usually being visualized is how capitalism administers existing structures, whereas the relevant problem is how it creates and destroys them”.

Scenarios are a way of describing how the tensions in conflicts and dilemmas play out.

Key drivers of change

To develop the scenario logics around the future of organisations, we might identify drivers of change such as the following:

- Shifts in values. A long-term cultural values transition is occurring globally along two chief dimensions: from authority to individuation values that cultivate distinctiveness, and from physical security and economic growth toward quality of life and well-being values
- Escalation of technological change
- Continuing population growth pressures and population ageing
- Shifts in centres of economic activity: regionally and globally
- Increasing demand for resources, pressure on the environment and climate change.

Next we identify those drivers of change which are more-or-less predetermined— and those which are fundamentally uncertain. Taking the uncertainties, we can then identify the different directions in which they might lead, and select those which will most help us think about the future.

Building Scenarios

There is no one right way to develop scenarios. Different cultures and different industries may dictate the use of one or another of the approaches for settling on the basic logics of a few scenarios. Scenarios should capture some surprises. They should aim to take a broader view, but maintain plausibility.

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Scenarios are not simply end-state descriptions of the world on some particular future date. It's important to see how we get from here to there. Each scenario plot should be different, yet relevant to the focal question. Christopher Booker has described the basic archetypal plot-lines which recur in many forms and in many different contexts.¹⁰ Those relevant to innovation scenarios might include the following:

“*The Quest*” – the hazardous innovation journey towards the goal

“*Escape from Death*” – how major risks emerge and are dealt with

“*Rags to Riches*” – smart thinking, not money holds the key to the future

“*Voyage and Return*” – travels into new market or technological territory

“*Overcoming the Monster*” – against all odds, success is achieved.

Using Scenarios

Exploring scenarios involves addressing three inter-related questions:

- What is the essence of the underlying formula for the organisation's success, given the range of scenarios?
- What portfolio of initiatives should we be pursuing?
- What are the early indicators that signal one or more scenarios may be emerging?

The portfolio of initiatives represent where, how, and when the organisation will create value. These initiatives are a set of actions over different time frames - short term, medium term, long term. These actions might include: introducing new organisation capabilities and retiring old capabilities; initiatives to increase speed of adjustment and flexibility, and foster progressive change; fostering organisational cultural change; forming new alliances and partners; and changing in the nature of the dialogue with key stakeholders.

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3. CREATING BETTER FUTURES THROUGH SCENARIOS

Key success factors for scenario planning

There are two key success factors for scenario planning. First, a structured process of facilitated workshops is vital for team learning and developing the scenarios. Second, the people selected to participate are critical to a successful outcome.

The scenario planning process involves the following activities:

- Decide on the Focal Issue, and selecting the key participants
- Conduct interviews and gather information to address the key issues
- Through a series of workshops, identify the frames of reference, the key drivers of change, conflicts and dilemmas, and the critical uncertainties
- Craft the logic for each scenario, and develop the scenario narratives
- Explore the implications - so what should we be doing?

The scenario planning project is designed around key workshops

The work of developing and using scenarios is centred on two major workshops. These would involve up to 15-20 internal and external participants. The task of developing a set of scenarios starts in the first workshop. Once the narratives have been drafted, the objective of the second workshop is to assess the findings, and explore the implications.

Scenarios can be narrowly or broadly focused, for example around:

- Corporate strategy and public policy issues such as development of the high level agenda, review of corporate structure, country risk assessment, and industry futures
- Innovation such as development of the agenda for R&D and market research, and new product and service development
- Business decisions such as capital investment, acquisitions, competitive bidding for major projects, and outsourcing initiatives
- Alliance development and inter-organisation collaboration.

CONCLUSION

In a recent McKinsey Quarterly Sheila Bonini and her colleagues argue that the case for incorporating an awareness of broad societal trends into corporate strategy has become overwhelming.¹¹ Emerging social, technological, environmental and political forces can alter an organization's current success fundamentally. They can torpedo the reputations of organizations that have been caught unawares; but they can also create valuable opportunities by highlighting unmet needs and new stakeholder preferences.

So the ability to rethink your organisation's purpose and direction is not just a valuable add-on to corporate practice, but the single most important factor for its sustainability.

In conclusion, the question is how we look at the world. This is a question for leaders, as well as for the members of any organisation; for the way that we look at the world controls the options that we can generate. Scenarios present a practical yet creative way of enlarging your organisation's options.

As Charles Darwin said: *"It is not the strongest of the species that survive, nor the most intelligent, rather it is those most responsive to change."*

The ability to rethink your organisation's purpose and direction is not just a valuable add-on to corporate practice, but the single most important factor for its sustainability

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⁶ See http://en.wikipedia.org/wiki/Failure_of_imagination.

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