

Linking Scenarios to Corporate Planning

**Gill Ringland,
Group Executive,
ICL,
Observatory House,
Windsor Road
Slough SL12EY**

Introduction

Over the last fifty years, scenarios have become part of the toolbox of strategists and planners. They trace their roots back to the work of Herman Kahn and others in the defence arena, which was adopted for use in planning by GE, Shell, and others in the late 60's. At the same time the Club of Rome work developed scenarios to highlight the possibility of the world's resources "running out".

This was an era of large numerical corporate planning models and the role model was GE, General Electric of the USA. GE was among the pioneers of using scenarios in the corporate world and they used scenarios to think about the environmental factors affecting their businesses. They used Delphi panels to establish and verify critical variables and indicators, while both trend-impact analysis and cross-impact analysis would then help to assess the implications of the interactions among critical variables and indicators. The cross-impact effects among likely developments were dealt with qualitatively, with plus or minus signs, which would then lead to the development of probable scenarios for the environment, which were fed back into the planning system. So at this time, scenarios were closely linked into corporate planning.

Also in the late 60's, Shell, another pioneer, initiated a study to look at their position to the year 2000. This showed that the predictable, surprise-free environment for the oil business would not continue, and that a shift in power from the oil companies to the oil producers in the Middle East would create major discontinuities in the oil price. Shell used this work to prepare for the effect of this from 1970, using a variety of threshold prices to examine the viability of new and existing operations, and suffered far less than their competitors from the oil price shock.

The disruptions of the oil price shock in the early 70's, and Shell's relatively unscathed progress caused increased interest in strategic planning and scenario planning. By the mid-70's, nearly a quarter of the Fortune 1000 were using scenarios. However by the 80's the threat of the oil price shock had decreased. The trend was to reduce corporate staffs. Massive planning systems and central planning were in disrepute. And scenarios got a bad name, through simplistic use of the technique, with confusion between forecasts and scenarios, and application of the term to "high/low growth" plans.

In the 90's, there has been a resurgence of interest in scenarios as part of the emphasis on growth and new sources of value, in Michael Porter's sense (1) of

- An internally consistent view of what the future might be;
- Not a forecast but one possible future outcome.

Much of the work has been on the creation and communication of scenarios as creativity or management development tools. So for instance in the health sector, several hospital systems in the US have used scenarios to improve the ability of the management team to share a flexible and coherent vision. The UK's National Health Service has carried out a scenario exercise - the Hemingford scenarios - to help plan for change in the NHS and as an aid to strategic thinking and learning. In aerospace companies, in consumer goods companies, the same applications to management development and the creation of a vision are found. These aspects, as well as a fuller history of scenario planning, are to be found in (2).

However, today corporate planning is also changing, with more flexible methods, speed of response, and accessible desktop systems. So it becomes relevant to revisit what was learnt on the traditional applications of scenarios in companies – links to corporate planning. A useful analysis by SRI (3) identifies four rather different types of connection:

- strategy development, the most often discussed use of scenarios;
- strategy evaluation – the use of scenarios as a test beds or wind tunnels for existing scenarios;
- sensitivity/risk assessment of a project or across a portfolio of businesses or projects;
- testing an existing strategy or plan, or “most probable” scenario against other scenarios to develop hedging or contingency plans.

Strategy Development

The scenarios relate closely to key elements of the strategy such as the competition, technology, or geography. The approach is then to develop a “resilient” strategy that can deal with wide variations in business conditions.

For instance, each scenario is analysed to determine the optimal setting for each element (What would be the best marketing strategy for Scenario A? For B?) The most resilient option for each strategy element is chosen for each of the scenario-specific settings. The resilient options are integrated into an overall, co-ordinated business strategy, taking all scenarios at face value without judging probabilities.

This approach makes maximum use of 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. But it requires effort and patience; and it works best when the decisions-makers participate directly in the scenario process.

An example of this approach is the work that United Distillers (now Diageo) has carried out a number of scenario development exercises to assess the future of markets such as India, South Africa and Turkey and hence the potential for and possible direction of business.

Scenario planning is regularly used at US-based clothing specialist Levi-Strauss by senior management who sit on cross-functional committees at headquarters level. Scenarios have been used to heighten awareness of the challenges facing the business, and to develop strategy in relevant areas such as the environment. They have been used to help thinking in the context of challenges, such as what would happen if cotton no longer existed, or what would be the impact of the deregulation of the cotton industry in the US.

Erste Allgemeine Versicherung, an insurance company based in Austria, first used scenarios in 1988. The main areas considered were politics, economics, the insurance industry structure and changes, technology and demographics. The objective was to look at the business environment and how other competitors might develop. As a result of the scenario process, the company anticipated the fall of the Berlin Wall and the opening up of Eastern Europe before it happened. This was identified as part of one of the scenarios in 1988. This enabled the company to be ready to move into Eastern Europe and therefore be one of the first companies to set up in Hungary. Companies were also founded in the Czech Republic, Slovakia and Slovenia.

BA used this approach to develop strategy, taking each scenario through to a full numerical plan. With hindsight, they thought that the last stage – the full numerical plan - had been more work than warranted by the benefit. This seems to be a consensus, that the best use is staying at the descriptive level, to avoid a focus on the detail of the model rather than exploring the underlying assumptions.

Strategy Evaluation

This method of connecting scenarios to planning uses scenarios as “test beds” to evaluate the viability of an existing strategy or compare proposed strategies. It is often the best first

use of scenarios in a company's strategic-planning system. The strategy may have derived from a set of implicit or default assumptions or a single-point forecast – the approach identifies quickly “bottom-line” issues and provides senior managers with immediate evidence of scenarios' utility.

It is often used in “management game” mode, where a business unit is played against a competitor under each scenario. This allows the management to assess the likely success of the business in the diverse conditions of the scenarios. In particular, it homes in on opportunities that the strategy addresses and those that it misses, threats/risks that the analysis has foreseen or overlooked, and factors affecting competitive success or failure. This approach normally highlights the options for changes in strategy and the need for contingency planning.

For instance, in 1995, ICL's manufacturing division had been trading as D2D for several years and increasing the amount of work done by the division for organisations outside ICL. D2D's business plans needed to cover a range of external business conditions and customers. We applied the test bed of our IT industry scenarios to the plans, and realised that the plans were based on a set of default assumptions closely aligned to one scenario. When we ran the plans through the wind test of the other scenario, we found that a number of the operational and business characteristics that D2D had assumed to have very high value were of less interest to the customers in this scenario. The analysis helped us to decide to sell D2D to Celestica, a global contract manufacturing company, in December 1996.

Sensitivity/Risk Assessment

Scenarios can be used in two rather different ways to assess risk. One way is to identify key conditions in the future market/industry environment (such as size/growth of market, changes in regulatory climate, or a technological breakthrough) that would be necessary for a “go” decision on a particular project. The other is to apply scenarios to a portfolio of projects and to use a technique such as a Market Attractiveness/Capabilities matrix to evaluate the comparative risk of the projects or businesses.

Using scenarios to evaluate a specific decision (such as a major plant investment or new business development) is very useful if there is a very clear and specific “decision focus” that lends itself to a “go/no go” decision. For instance, a construction company uses the technique for “back of the envelope” examinations of business propositions, and as part of its project portfolio management. In more complex cases, computer modelling (with scenarios providing assumptions) can be used to evaluate the strategy's resilience or vulnerability to differences in business conditions. So for instance 3M Telecommunications Systems Division has used scenarios, linked to payoff and risk assessment, to implement new strategies following deregulation.

In ICL we have used the Market Attractiveness/Capability (MA/C) matrix (4), as a way of summarising the effect of scenarios on projects or businesses. Our Market Attractiveness criteria are based on Michael Porter's forces - Market growth, Barriers to entry, Market size, Cyclical trading, Competitive structure, Power of buyers, Regulatory position. We use a ranking of one through seven to weight the importance of each. Each criterion is judged to be met well, good, badly or indifferently by each project, and +1, -1 or 0 times the ranking weight added to the “score” for each project in the portfolio. So the best possible project would be scored 28.

The capabilities are different for each business, but the method of deciding criteria, of ranking them, and of scoring each business is similar. The businesses are then ranked and displayed on the matrix. Each square suggests a different management strategy.

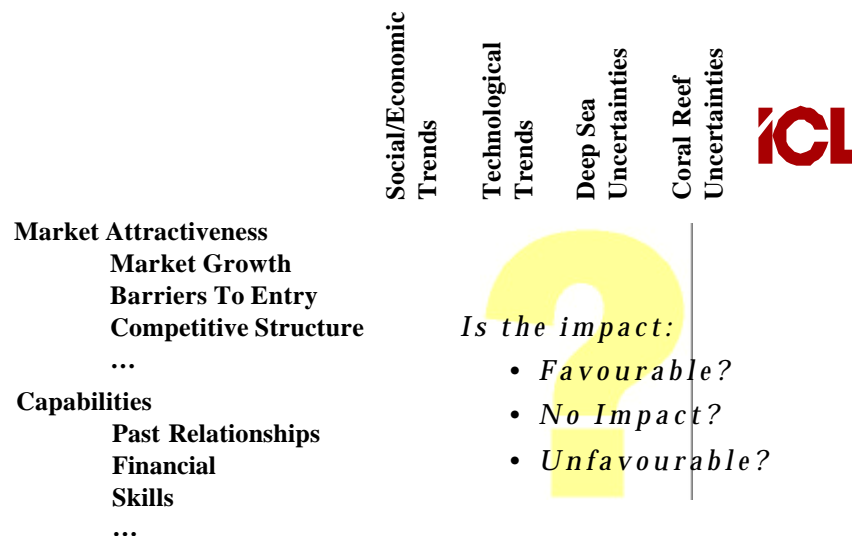
When we were faced with an investment decision – which of seven potential new businesses should we invest in - we applied scenarios to each project or business – what would be the position in ten years time? Again we used a very simple scoring method – but we found that we had to decompose the scenarios into about 20 aspects of the description to get a sensible

discrimination. Some of these were trends common to both scenarios, and others were scenario specific. In Figure 2, the two scenarios were called Coral Reef and Deep Sea.

Figure 1: MA/C matrix

Market Attractiveness	Capabilities		
	Weak	Medium	Strong
High	Double or quit	Try harder	Leader
Medium	Phased withdrawal	Proceed with care	Growth
Low	Withdraw	Phased withdrawal	Cash generation

Figure 2: Effect of scenarios on MA/C



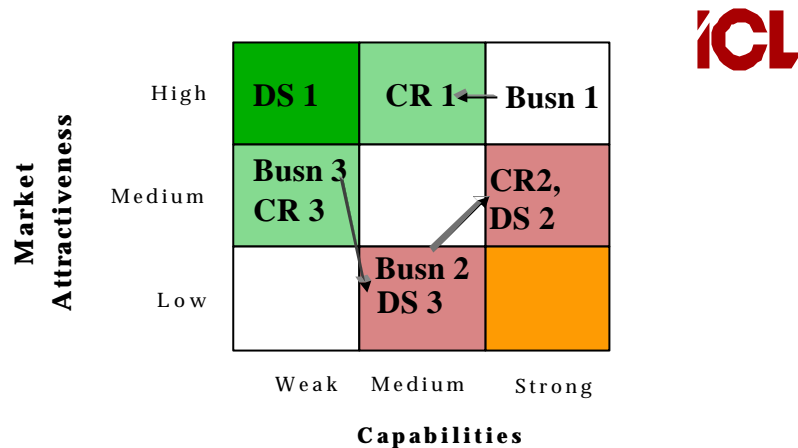
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When we plotted the initial position of each project or business (Busn1 through Busn3 on Figure 3), and the position under each of the two scenarios Coral Reef (CR) and Deep Sea (DS), we found that the movement was by no means in the same direction for all the projects.

- Business 1 remains an attractive market, but under both scenarios our capabilities became less well targeted.
- Business 2 became more attractive and oriented better to our capabilities under both scenarios.
- Business 3 became part of an unattractive market in the Deep Sea scenario, although it fitted well with our capabilities. It remained a “Phased Withdrawal” business under both scenarios – not a candidate for investment!

The changes in markets and competencies, and the changing resultant positioning of our businesses on the matrix, allowed ICL to think about the seven potential new businesses and requirements for new skills, as well as making the investment decisions.

Figure 3: Portfolio of businesses



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Hedging or contingency Planning

This fourth method starts with one particular view of the world – this may be the assumptions behind the current plan, or “the most probable” of several separately developed scenarios. Then a strategy and plan is developed to fit this scenario, maybe using a SWOT (strengths, weakness, opportunities, threats) analysis.

The strategies & plans developed for one scenario are then tested against other scenarios to assess resilience and the need for modification, “hedging”, and contingency planning. In its step-by-step process, this addresses many key questions that scenario-based strategy should ask, and avoids the pitfall of focusing on only one scenario.

Using probabilities attached to scenarios has been extensively used in France, with Michel Godet’s guidance, as described in (5). Probabilities are also part of the Batelle approach, and the CSM (Comprehensive Situation Mapping) tool, which has been used for instance to model new banking competitors, described in (2).

Cable & Wireless developed different scenarios for the competitive environment for each of its business units based on a series of workshops of the management teams. Then one of the scenarios was selected, or a combination of them extracted, to arrive at a base case to use for key strategic and tactical decisions. They found that if there were three scenarios, the strategy would be devised geared to the base scenario and perhaps a second. But a contingency plan would be developed in case the third scenario began to emerge. The difficulty was to get a process that would alert the units to trigger points indicating that a possible factor was becoming more likely. However the scenarios have become an integral part of strategic planning in the business units involved.

Summary

The wheel has turned, and once again scenarios are being integrated into corporate planning. This has not, on the whole, meant developing versions of the corporate plan through to P&L and balance sheet for each scenario. Rather, it has meant using scenarios in one or more of four ways:

- strategy development at the business unit or corporate level;
- evaluating existing strategies or plans, using the scenarios as a test bed or wind tunnel;

- assessing the sensitivity or risk of a project, or comparing a portfolio of businesses or projects;
- working with a base or most probable scenario, and developing early indicators and contingency plans for the other scenarios.

References

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