

RELEVANT TO ACCA QUALIFICATION PAPER P3

## Strategic planning in an age of turbulence

For an organisation, turbulence can be defined as unpredictable and swift changes in its external or internal environments that affect its performance.

Internal events usually limit their effect to the organisation in which they occur. External events are much more wide-reaching, often affecting all organisations or all organisations within an industry sector. These events would often be identified, though not necessarily predicted, through a PESTEL or Porter's 5 Forces analysis.

Examples of turbulence	
External events	Internal events
The banking crisis	Loss of a major customer or contract
The Euro crisis	Loss of key staff
The 'Arab spring'	Liquidity problems
The Japanese earthquake and tsunami	A discovery
Rapid changes in technology	Taking over another company

A decade ago, economic growth, interest rates, the impact of the internet and so on were moving in fairly stable patterns. Of course, even during this period of relative stability, music companies were trying to work out how to respond to MP3 downloads, and a company like Kodak was trying to tackle the impact of digital cameras. But the environment as a whole didn't spring too many nasty surprises and businesses felt confident to plan for the future. How different the last few years have been, as shown above in the examples of external events. Furthermore, once turbulence is established it can be some time before things settle down again. So we are now, undoubtedly, in the middle of a turbulent period.

Our current environment is not uniquely turbulent and there are many examples of turbulent periods from the last 100 years or so: World War I, the great depression of the 1930s, World War 2, social changes in the 1960s, the disintegration of the Warsaw Pact, events following the attack on the World Trade Center. Turbulence seems to be inevitable, though few people recognise that, perhaps because its cause and effect cannot be predicted in any detail. But we know something unexpected always happens. The inevitability of turbulence should have very important implications for how organisations should plan for their long-term survival.

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**Knowns and unknowns**

All planning requires us to peer into the future as far as we can, and based on what we see and our forecasts we devise plans. However, there is a huge range in what we are capable of foreseeing and with what reliability. It is useful to divide future events into three classes, as did Donald Rumsfeld, the former US Secretary of Defense. He was derided at the time but – at least in this matter – he made perfect logical sense, though somewhat clumsily expressed:

‘There are known knowns; there are things we know we know. We also know there are known unknowns; that is to say, we know there are some things we do not know. But there are also unknown unknowns – the ones we don't know we don't know.’

- The known knowns – for example, an organisation might know that its drug patents will expire in three years, or that it will be relocating in six months. These events are relatively easy for planners to handle and to build into budgets and objectives.
- The known unknowns – for example, an organisation might know that its competitors are going to launch an important new product but it is not sure exactly what the characteristics of that product will be. (Think of the launch of the Apple iPad: everyone knew something was coming, but no one outside Apple knew any details.) Or, organisations might know that interest rates will rise but are not sure when or by how much. These types of unknown can be handled by making estimates and possibly by assigning probabilities to the various outcomes. Decision trees, expected values, and sensitivity analysis are all very useful techniques.
- The unknown unknowns – do you know when there will be a powerful earthquake that flattens the city of London? (Of course, by definition, we don't know if there will ever be one.) In 2007, no one knew, or suspected, that Lehman Brothers would fail. Unknown unknowns cannot be planned for, but organisations should assume that they will happen and should therefore build into their plans robustness to protect themselves against negative events and an ability to exploit positive ones.

These unknown unknowns are by far the most difficult to manage. They are sometimes termed ‘black swan events’ (1) because before black swans were discovered in Australia, no one could imagine the existence of a swan that wasn't white. Black swan theory was developed by Nassim Taleb to explain:

- the huge impact of unpredictable, rare events that are outside our normal experience and without historical precedent
- the non-computability of the effect of these rare events because there is no data on which to base calculations

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- the psychological bias that blinds us to the possibility and impact of rare events. We tend to assume that things (such as property price increases) will continue in a predictable way.

The phrase ‘black swan event’ is therefore used as a metaphor for the frailty and limitation of any system of thought and planning: bounded rationality. This means that we cannot know all-important factors that will affect the future (and, anyhow, do not have time to evaluate them). We are, in practice, likely to suffer from bounded rationality even with the known knowns because of imperfect research or pressure of time. However, in a period of turbulence, more events will be in the last two categories and this makes planning more difficult. So how should organisations respond to the threat of unknowns while still trying to move forward in terms of gaining competitive advantage?

### Planning approaches

Three approaches to strategy are summarised in Johnson, Scholes and Whittington’s strategic lenses:

- (1) Strategy as experience. Here, strategic development is the adaptation of past strategies based on experience. In this view, strategy is greatly influenced by taken for granted assumptions, one of which is that the world will advance in a gradual, linear and relatively predictable way.
- (2) Strategy as design. Here, strategy development is a process of logical and rational thought. Developments that arise are evaluated, resources allocated and specific strategies are followed.
- (3) Strategy as ideas. Strategies are needed to cope with uncertain, unpredictable and changing environments.

There are analogies here with a suggestion made by Professor Vijay Govindarajan – namely that organisations should place their planning projects into three boxes:

- Short term – projects here are about managing the present and would include process improvement, product and market development. These projects are in response to linear (therefore non-turbulent) changes in an industry.
- Medium-term – projects here concern ‘selectively forgetting the past’ and they are driven by non-linear changes such as the Internet and the ‘Arab Spring’. Projects here are aimed at moving into areas neighbouring the organisation’s core activities.
- Long term – entirely new business ventures. Very speculative, and based on many assumptions.

It is important to realise that the three approaches in each model are not mutually exclusive and that all three will be carried on in parallel:

- It is important that the present is managed carefully and making use of experience and expected developments.

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- It is also important that organisations move forward steadily and adapt to changing opportunities.
- At the same time, organisations should be aware of, or should attempt to predict, more radical longer-term changes. Although those changes might not be in place for 10–20 years, work to prepare for them might have to begin now.

In relatively stable times, a company might divide its projects and efforts over the three categories in the ratio 50/30/20. Note that even under conditions of stability, substantial effort should be given to long-term projects.

In turbulent times, companies that are panicked will have projects in category 1 only. They become obsessed about clinging to the safe and familiar, and important longer-term projects might be abandoned. However, a better approach would be to keep projects in all three categories, but perhaps reduce the number in each. Reducing the number in each provides some safety because less investment spent on projects provides something of a buffer in turbulent conditions. However, this approach allows attention still to be paid to the long-term future of the organisation by insisting that longer-term projects are always important.

### **Responsive, robust and resilient**

Kotler and Caslione (2) address the problem of chaotic or turbulent environments. They suggest that organisations need to plan to be:

- responsive – the ability to react quickly to change
- robust – the ability to withstand stresses and to cope well with change without losing functionality
- resilient – the ability to rebound to a position of success.

Consider human resources management when there is a severe and unexpected turndown in business. HR management would need to be:

- responsive – it might be necessary to block all hiring, to ban overtime, to freeze pay and to make redundancies
- robust – care is needed when choosing who should go so as not to jeopardise functionality; care is also needed to preserve motivation and to try to keep good staff
- resilient – instead of redundancies, it might be better to ask employees to move to shorter working weeks so that valuable talent is not lost for ever. Then, when the economy recovers, the company is ready to bounce back immediately without a delay for recruitment.

### **Practical approaches**

#### *Flexibility*

Responsiveness, robustness and resilience are really an expansion of the

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concept of flexibility. It is essential to try to build flexibility into any strategic plan – even in relatively stable conditions. One of the standard criticisms of the rational planning approach is that it lacks or inhibits flexibility (though that is more a criticism of how the plan is used rather than a criticism of planning itself). Examples of building in flexibility include:

- leaving headroom in any financing plan. For example, arranging lines of credit
- having break-clauses or extension options in lease agreements
- building in the ability to upgrade or extend operations
- use of currency options
- buying from a range of suppliers. For example, some companies that relied on just-in-time inventory had problems after the Japanese earthquake because their supplies were quickly exhausted. Now manufacturers try to build flexibility into their supply chains
- stand-by and disaster recovery plans for IT systems
- a mix of permanent and sub-contracting staff
- pilot operations to gain experience in new ventures. If successful the operations can be extended and can make use of experience gained
- joint ventures to spread risk and finance, and to make use of a wide range of expertise.

### *Scenario planning*

Scenario planning attempts to take into account the many things that could happen and from those to build a number of believable, alternative futures. Not all the events that could happen are likely to happen together, so those permutations can be eliminated. For example, if an election is likely and we believe that a change in government would lead to a cut in public spending and a drop in interest rates, then there is no point considering a scenario of the new government reducing public expenditure and increasing interest rates as that is an implausible scenario. This greatly helps to reduce the number of ‘universes’ we have to consider and allows the organisation to concentrate on the few most likely ones and plan its response to each of the plausible scenarios.

	<b>Interest rate = 5%</b>	<b>Interest rate = 2%</b>
<b>Government 1 Lower public spending</b>	Implausible combination	Scenario 1
<b>Government 2 Maintained public spending</b>	Scenario 2	Implausible combination

### *Sensitivity analysis*

Investigate the effect of assumptions about the future changing. Investigate sensitive assumptions more to get greater assurance. Look for ways of defusing high risk areas.

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*Decision trees*

Decision trees can be used to map out the various patterns of events that can occur. Expected values can be used to evaluate the possibilities, or if probabilities are too difficult to estimate, the possibilities can be examined under conditions of uncertainty.

Note, however, that although expected values are often calculated, this approach to strategic planning is almost always inappropriate. Expected value calculations reduce detail into a single figure, that is usually not 'expected' to occur, and this is the reverse of what is required to encourage responsiveness, robustness and resilience. All of these require attention to detail.

For example, Quandary Co could spend \$8m and then either have earnings of \$20m with a probability of 0.6 or could make a loss of \$5m with a probability of 0.4. Let us assume that the project lasts 10 years and that all financial flows are in present value terms.

Outcome	Probability	\$m
1	0.6	20
2	0.4	(5)

The expected value of this project is:

$$-8 + 0.6 \times 20 + 0.4 \times (-5) = \$2\text{m}$$

However, this positive result conceals the 40% chance that the company will have an adverse cash flow of \$13m (\$8m cost and then a \$5m loss). Often, that type of adverse outcome could lead an organisation into liquidation, so ignoring the downside risk (and there might also be additional unknown ones) is certainly not a robust methodology.

Furthermore, this approach, as presented, does not show responsiveness or resilience. Cash flows and probabilities are both subject to change and the company seems to be signing up to a 10-year project that is all or nothing. Although sometimes the nature of a project will mean there is little or no flexibility, it is beholden on companies to look for flexibility.

Now assume that further investigation shows that the project can be broken down into two, consecutive five-year blocks. The initial cost will be \$5m and this will generate half of the original amounts: either a profit of \$10m or a loss of \$2.5m. Assume that after the first five years have passed, the company will have gained information that allows it to predict with certainty what the outcomes of the second five years will be. This is not unreasonable as the passage of time allows more information to be collected that can be used for

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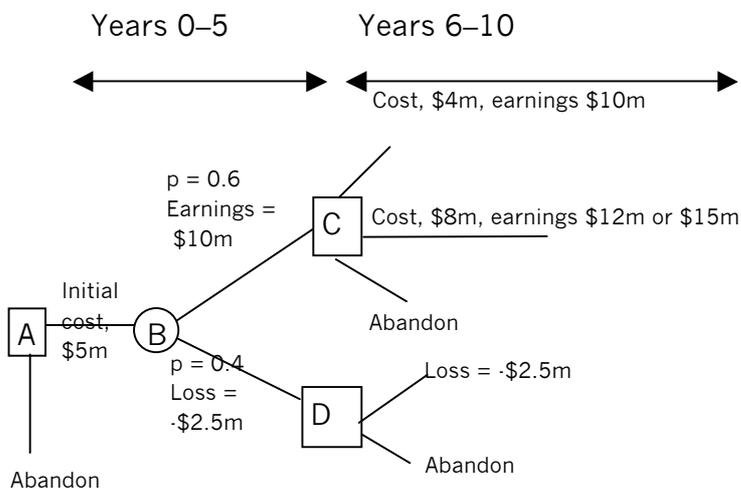
further analysis. Also, events that had been a long way off are now closer and easier to predict. Therefore, the income figures shown below for the second five years are not known at the outset but are known after the first five years.

If the company wants to continue after five years, expenditure of another \$4m will be needed to generate the same earnings as would have been earned with the original one-stage investment. (\$3m to bring the cost up to the original \$8m plus a premium of \$1m for the delay).

Alternatively, enhancement expenditure of \$8m would then increase earnings to \$12m or \$15m depending on the state of the world economies (this will be known after five years). This possibility wasn't even suspected at the very start of the project, but has now opened up.

If Quandary didn't wish to invest further funds after five years, the project could be abandoned at the end of the first five years for no further cost. If the outcome had been poor in the first five years, it will be poor in the second five also, irrespective of any attempt at enhancement.

The choices and outcomes are now:



The company's game plan could now be as follows:

- (1) Assess the likely outcomes from the first five years. As far as has been forecast, this will either be a net profit of \$5m ( $10 - 5$ ) or a loss of \$7.5m ( $-2.5 - 5$ ). The expected value of the first five years alone would result in break-even ( $0.6 \times 5 - 0.4 \times 7.5 = 0$ ). Within that figure there is a high chance the loss will occur and the company should have a good hard look at whether it is **robust** enough to stand a loss of \$7.5m (plus a bit more for headroom).

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- (2) If Quandary Co embarks on the project and makes a loss in the first five years, then, to avoid further loss, the project can be abandoned. This option provides *responsiveness*.
- (3) If Quandary Co embarks on the project and makes a profit in the first five years, the company can reassess what it should do then. Its choices are:
- abandon the project. This could be done if the economy then looked very poor so that the company didn't want to risk a further \$4m or didn't feel robust enough to do so
  - spend \$4m to earn \$10m; a profit of \$6m
  - spend \$8m in the hope of earning either \$12m or \$15m; profits of \$4m or \$7m. (The company would, in fact, presumably not spend \$8m to earn \$12m because that profit of \$4m is less than the profit of \$6m that the first option gives.)

These provide *responsiveness* and also *resilience* because Quandary Co has been able plan to spend to rebound if economies improve.

Of course, as it turned out, none of these happened. A black swan was sucked into the cooling inlet pipe of the local nuclear power station causing a meltdown of the core. All homes and businesses, including Quandary Co, within a radius of 20 km had to be abandoned.

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**References**

- (1) *The Black Swan*, Taleb NN, Penguin, 2010  
(2) *Chaotics*, Kotler and Caslione, Chaotics, Amacom, 2009