



Informed strategy, inclusively developed, effectively delivered

STRATEGY PAPER - Strategy workshops and top-team commitment to strategic change

This paper describes the experience of 40 strategy workshops conducted with the top teams of a variety of businesses. While the aim of the workshops was to produce high levels of commitment to good quality strategies, in a number of cases the outcomes were disappointing; little strategic change took place. Presents and discusses four “out-comes” from the workshop process: “impoverished strategy”, “consultants’ strategy”, “blinkered strategy” and “workshop strategy”. Indicates the importance of entering the “zone of uncomfortable debate”, and sets out techniques for exploring the “intuitive core” or shared beliefs and assumptions.

Introduction

This article is based on the experiences of the author and colleagues in facilitating a series of strategy workshops held with the top management teams from a wide variety of strategic business units (SBUs). The workshops were conducted over the period 1988 to the present. The aim of the workshops was to facilitate a process during which the top team would be able to arrive at a shared understanding of the future direction of the business, and to ensure that there was a high level of commitment to the actions required to implement the chosen strategy. The workshops were usually entered into because the CEO of the strategic business unit (SBU) (or the corporate level CEO) believed that the strategy of the SBU needed to be thoroughly examined. To date, over 40 workshops have been held with SBUs from both manufacturing and service sectors, based mainly in the UK.

The workshops were typically conducted as an intensive two- or three-day event in allocation away from the organization. Occasionally the workshop comprised a sequence of two or three day long events separated by two-week intervals. The workshops would typically move through an assessment of: the firm’s environment; the generation and evaluation of strategic options; option selection; an analysis of blockages to change; generating actions to achieve the strategy; agreeing ownership and timescales. The stimulus for the article was a concern that, although the workshops seemed to be largely successful events, there was some doubt about the effectiveness of the process in triggering significant change in the organizations involved. For example, a colleague recounted his experiences with a private-sector health-care organization. A year previously he had conducted a two-day strategy workshop with the top team. Eight major actions were agreed that had to be implemented in order to effect the changes required. Volunteers came forward to take “ownership” of each action. At a follow-up meeting a year later he suggested that they review progress in implementing these key actions. After an embarrassing silence, he then asked each member of the team individually to report progress on the action he or she “owned”. On only one of the eight actions had any progress been made. But, of course, a

wide range of explanations were advanced as to why progress had been difficult in the other areas.

As no systematic follow-up processes were established to check on the impact of the workshops this article relies on personal reflections, colleagues’ observations, and ad hoc feedback from managers in the organizations involved. This is clearly an unsatisfactory basis for constructing an academic paper. In mitigation I would argue that there was no explicit research agenda in mind when the workshops were first (opportunistically) embarked on. We had little idea at the outset that the format would prove to be popular. However, I believe there are interesting issues that have emerged from reflecting on these processes, and in discussions with managers, that are worth sharing with a wider group of colleagues in the field.

The article points out some problems of managing these strategy workshop processes, and some of the techniques and approaches that have been developed to try to tackle these problems are presented. The article concludes with some suggestions for future research.

Strategy quality and commitment

The explicit aim of the workshop process was to improve the quality of SBU strategy and to generate high levels of commitment. The key to achieving these improvements was the involvement of the top management team in the strategy-making process. The role of the workshop facilitators was to manage the discussion, to introduce helpful frameworks and concepts, and to ensure that all the members of the team were able to contribute (by, for example, breaking the team into smaller groups at certain points to allow the less forthcoming members to have their say). The implicit assumption underpinning the workshop process was that “double-loop” learning would occur [1,2].



Informed strategy, inclusively developed, effectively delivered

The assumption that the workshop process would produce the desired results must be challenged in the light of the disappointing outcomes of some of the workshops. To explore the outcomes of the strategy-workshop process the two dimensions explicitly addressed by the workshop format, namely the content quality of the strategy, and the level of top-team commitment, have been used to construct the matrix in Figure 1.

		Top management team commitment to strategy	
		Low	High
Quality of strategy	High	Consultant's strategy 2	Workshop strategy 4
	Low	Impoverished strategy 1	Blinkered strategy 3

Figure 1 Exploring the assumption that workshop process improves strategy quality and commitment

By distinguishing high and low levels of commitment and strategy quality, four cells are generated in the matrix. In order to explore these four cells more generalized strategy processes are considered. The “workshop” process should ostensibly be located in cell 4.

Cell 1: the impoverished strategy

In cell 1 there is little or no commitment to a poor quality strategy. The process of producing the strategy may well be significant in producing this inadequate result. Examples may be some mission statements produced in a hurry, without a great deal of thinking or analysis, that are viewed as a fashion item by top management, and are disregarded as cynical attempts at manipulation by more junior levels in the organization. Some corporate/SBU strategy dialogues could also end up in this cell, particularly where the process is seen to be little more than an elaborate ritual by both parties. Top-team reactions to a cell 1 outcome may range from apathy and indifference to ridicule.

Cell 2: the consultant's strategy

Here the content quality may be high, but the top team does not “own” the strategy. The strategy has emerged from an analytical process which, because of the relatively objective stance of the consultant, has produced a sound strategic direction for the business. But even though there may have been extensive discussions between the consultant and the top team, it remains essentially the consultant’s strategy. The

“consultant” may be external to the firm, or internal (residing, for example, in a planning or business development function). Top-team reactions to a cell 2 outcome are likely to include: irritation (they have to find reasons why the strategy should not be followed); foot-dragging; watering down the original intentions of the strategy during the implementation phase; reinterpretation of the strategy to suit their own (maybe functionally driven) objectives; sabotage.

Cell 3: the blinkered strategy

The cell 3 outcome is a combination of high levels of commitment to a poor-quality strategy. The strategy process is not sufficiently challenging to deliver the shifts in direction that may be required. For example, where strategies are little more than an aggregation of functional plans, there may be strong commitment (because each team member is basically writing his or her own strategy), but the process is unlikely to deliver a coherent business level strategy. But there are other explanations for a cell 3 outcome that derive from the implicit assumptions shared by the team. These are explored further below. Top-team reactions to a cell 3 outcome are feelings of satisfaction and comfort, particularly where the strategy is merely an elaborate justification of the status quo.

Cell 4: the workshop strategy

This is where the workshop processes were designed to be. Top-team involvement in a challenging strategy debate should lead through to high levels of commitment to a sound strategy, the top-team reactions being feelings of excitement and achievement (“we have really sorted out some important issues”) coupled with some apprehension (“this means I have to change”).

Unintended outcomes from the workshop process

Although the intention of each workshop was that it should lead to a cell 4 outcome, this was clearly not the case in many situations. In this section I will explore these unintended outcomes using the matrix in Figure 1.

From cell 4 to cell 1 (the impoverished strategy)

Fortunately, this did not appear to happen often. On occasions where this extremely unsatisfactory result emerged it seemed to hinge on events prior to the conduct of the workshop. Where a similar workshop activity had occurred previously that resulted in little change, this coloured perceptions of the current workshop (“we did one of these last year and nothing happened”). The other prior condition that was lacking was CEO commitment to the process. On one occasion the CEO of the business unit appeared to have been “forced” to get involved in the workshop by his corporate level boss. In two other cases there appeared to be prior CEO commitment to the



workshop, but the behaviour of the CEO during the workshop sent clear signals to the rest of the top team that he was distancing himself from whatever emerged from the process. It was seen by the CEO as an exercise (not deciding strategy “for real”) and he might or might not go along with the resulting strategy. Once the rest of the team perceived the process as merely an “exercise”, energy and interest waned.

From cell 4 to cell 2 (the consultant’s strategy)

Here the content of the strategy seemed to be quite sound. Commitment was low for various reasons. It may be because of demonstrable distancing of the CEO from the strategy (as above), or on occasion the team believed that although the strategy was well conceived they would be prevented from delivering it by their corporate-level bosses. To what extent this was true, or whether it was an excuse not to have to change, was not possible to discern. The outcome, though, was the same: low levels of commitment, with the team distancing itself from the strategy. This also occurs where the team is happy to engage in intellectual debate, and has fun in using strategy frameworks and techniques to analyse its business. But the debate seems to be conducted at “arm’s length”; it is as if this were a case study, rather than the team’s own organization.

From cell 4 to cell 3 (the blinkered strategy)

This appears to be the most common shift, and it is the one that is most difficult to detect during the workshop process itself. The workshop is seen by the top team to be a great success, high levels of energy and enthusiasm are displayed, and there appears to be genuine commitment to the strategy. The problem is that the strategy is essentially confirming the past. Somehow the workshop process has been unintentionally steered towards a con-formation and justification of the status quo. Figure 2 can help us explore this shift from cell 4 to cell 3.

The zone of comfortable debate

It seems that a substantial amount of discussion in workshops resides in the outer zone of Figure 2, the zone of comfortable debate. Teams have fun here, or at least they are prepared to humour the facilitator by playing with the techniques and frameworks. If the debate is maintained in this zone, exciting strategic options can be generated, but these are not to be taken seriously. Managers can be quite comfortable determining strategies and voicing their commitment to them in the meeting, while simultaneously knowing that they have no intention of changing anything they do personally to bring them into line with the stated strategy.

The zone of uncomfortable debate

Difficult issues lurk in this zone. It is usually entered by accident and the typical response is to get back out to the

comfortable zone as soon as possible. This tendency to avoid engaging in the uncomfortable zone is exacerbated by the “team building” agenda that often runs through the workshop. Not “rocking the boat” and demonstrating that you are a team player leads to self-censorship, preventing doubts and criticisms being voiced.

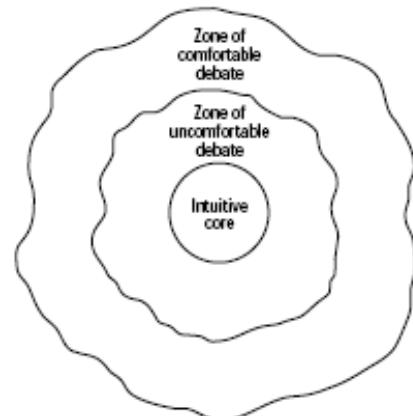


Figure 2 Why the shift from cell 4 to cell 3?

It is clear when the discussion strays into this zone; you know when you are in it! Tension is heightened, and individuals are clearly uncomfortable. Issues that have inadvertently been exposed in this zone include:

- relationships and lack of trust within the top team;
- the failings of the marketing department;
- beliefs (shared but never previously openly discussed) about a subsidiary deliberately withholding products;
- the autocratic style of the CEO;
- surfacing the facts about the critical situation of a major subsidiary.

The intuitive core

The intuitive core refers to the implicit assumptions shared by the team. Important conceptual contributions to our understanding of these cognitive processes include the notions of “frames of reference” [3], “schemas” [4, 5], “dominant logic” [6], “paradigms” [7] and “recipes” [8].

Knowledge structures” (shared beliefs at the organizational level) can embrace goals, beliefs about cause-effect relationships, assumptions about competitive strategies, the firm’s strengths, and who the major competitors are [9]. These are socially constructed and rely on consensus and agreement. Knowledge structures are used by managers to interpret their environment, and thus they underpin strategic debate.



Group pressures to conform, and to suppress dissenting views voluntarily, have also been well documented [10, 11]. The “group-think” phenomenon can effectively prevent the surfacing of inappropriate shared assumptions. However, unless elements of these shared beliefs and understandings are made explicit, the strategy debate is likely to be constrained. Ideas and initiatives that fall outside the accepted wisdoms will not be generated. This may mean that only incremental change is conceivable, which can lead to “strategic drift” [7]. Therefore, the need to surface the intuitive core of beliefs which is framing and constraining strategic debate is clear. Indeed, this was a primary intention of the workshop process.

The way Figure 2 is constructed suggests that the intuitive core is protected by the zone of uncomfortable debate, and this inferred relationship points up the dilemma of the workshop format. There would appear to be two “natural” outcomes to the intended workshop process:

- (1) The cell 3 (blinkered strategy), where the team-building agenda swamps critical and challenging debates.
- (2) The cell 2 (consultant’s strategy), where the debate is more objective and rational, but there is little emotional attachment to the strategy. Moreover, the raising of difficult issues can be demotivating and demoralizing, seriously disrupting relationships within the team.

Before we explore ways through this dilemma, it might be helpful to bring the focus down to the level of the individual manager in the top team.

Change and personal risk

The attraction of cells 1-3 for the individual team member is that they usually require no change in behaviour. If changing is perceived as personally risky (because it is threatening and uncertain) then a manager will seek to avoid it, particularly if the change carries a risk of failure [12, 13]. In cell 1 no change is required because the strategy is not to be taken seriously; in cell 2 there is no need to change because there is no shared commitment to the strategy; in cell 3 we have merely confirmed the status quo (in an elaborate way) so, again, no change is required.

If we follow this line of reasoning, the successful cell 4 outcome can only be achieved if individual managers perceive changing as less risky than maintaining the existing patterns of behaviour.

Workshop interventions to shift perceptions

Is it possible to shift the perceptions of an individual manager in such a way that not changing is perceived to be the riskier

option? Through accident and, later, deliberate intentions we have evolved a set of interventions into the workshop process that appear to have this effect. This section of the article briefly sets out some of these approaches (more detailed explanations can be found elsewhere, as referenced). Most of the interventions are designed to shift the debate from the comfortable zone, through the uncomfortable zone and into the intuitive core. The intention behind these interventions is, *inter alia*, to surface assumptions and beliefs that are taken for granted [7, 14]. By making these assumptions explicit they can then be challenged and debated. These interventions take three forms; all of them are concerned with trying to present to the managers some aspect of the real situation facing the organization:

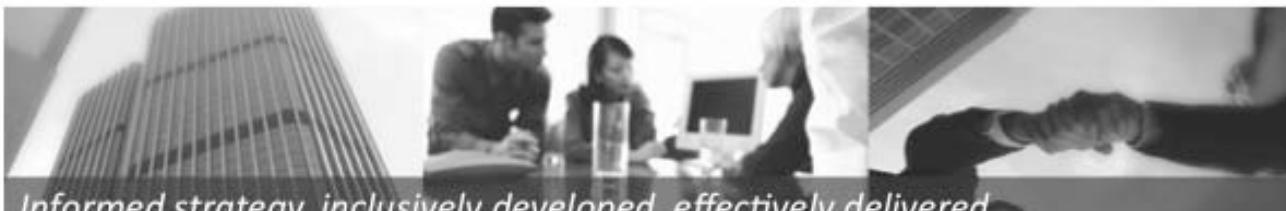
- (1) feeding back aspects of organizational “reality”;
- (2) challenging shared assumptions;
- (3) exploring the extant culture.

Feeding back aspects of organizational reality

One crude example of feedback is to try to shock the team out of its complacency by demonstrating how far behind the competition its organization is. Presenting hard facts which point out the seriousness of the situation can work. We have also achieved a higher level of energy in the strategy discussions by indicating that the parent organization was considering selling off this particular subsidiary. For these shock tactics to work they must be credible and true representations of the situation facing the organization. Otherwise, not only is there a rather dubious morality involved in the intervention, it may well produce the exact opposite to the desired outcome; it ends up as phoney “whistle-blowing” and considerably reduces the credibility of the facilitators.

But these are blunt weapons and their deployment carries a high level of risk for the facilitators. Difficult issues that have surfaced during workshops can also act as a powerful stimulus to debate. But again, this can be a high risk tactic for the facilitators, particularly if the CEO has made it clear that the issues should not be discussed.

On one occasion, a more positive stimulus was injected into the discussion which appeared to generate higher levels of energy and enthusiasm. In this case the SBU was small (turnover \$20m) and it was trying to generate strategic options. The team was bogged down in operational detail until the facilitator intervened with the question, “How are you going to grow this into a \$100m business in three years?” This lifted the discussion on to a strategic level. This intervention indirectly probed the intuitive core, particularly the team’s shared belief that it was a small player, and likely to remain that way.



Informed strategy, inclusively developed, effectively delivered

More reliable and lower-risk interventions have been built around a set of specially developed instruments. These have been designed to tap into an important aspect of organizational “reality” and to feed the results back to the team. So far instruments have been developed which explore:

- managerial perceptions of the organization's realized strategy;
 - perceptions of the strategy processes;
 - managers', competitors' and customers' perceptions of competition.

Feeding back realized strategy

The current realized competitive strategy of the firm has been accessed by using a straightforward questionnaire (see [15] for a fuller explanation of the technique). The extant strategic priorities perceived by managers can be used to produce plots like Figure 3. When these are fed back to the top team as part of a strategy workshop they can have a powerful impact on the process. For example, the plot in Figure 3 represents the perceptions of the senior managers from the European subsidiaries of a US chemical corporation. The managers perceive that the current strategic priorities are essentially to do with cost cutting and improving operational efficiency. However, these responses were gathered two years into the implementation phase of a differentiation strategy, based on enhanced customer service. The result of this feedback to the top team was an open admission that the team members did not

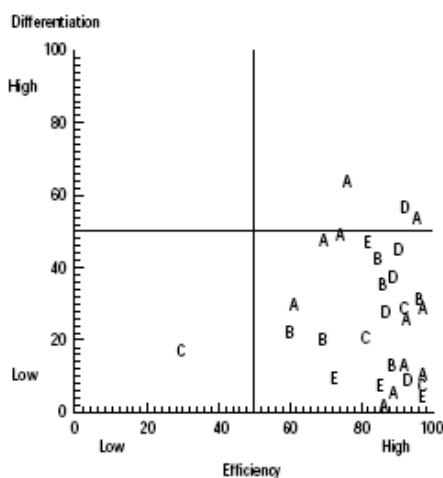


Figure 3 Perceptions of senior managers from European subsidiaries of a US chemical corporation

really believe in the strategy. They had all been involved in presentations to staff across Europe, and although the team members espoused the differentiation strategy, their day-to-day actions were signalling quite different cost-reduction priorities to their subordinates. The CEO then led an open discussion

trying to explore the doubts and problems team members had with the differentiation strategy.

Feeding back perceptions of the strategy process

Perceptions that top managers have about the way strategy is determined in the organization can differ significantly. An instrument for revealing these perceptions has been developed which can provide an important lever in raising the level of openness and honesty in the strategy process [16]. However, the example depicted in Figure 4 moved the workshop process into the zone of uncomfortable debate. The CEO's perceptions of the strategic decision-making processes were substantially at odds with those of the rest of the team. Although some of the members felt it would be helpful to discuss these differences, the CEO suggested that this would be counter-productive and requested that the facilitators move on to another issue.

Feeding back perceptions of competition a recently developed technique has enabled us to surface assumptions that team members have about competitors [17]. A surprising outcome has been the considerable differences there appear to be, first,

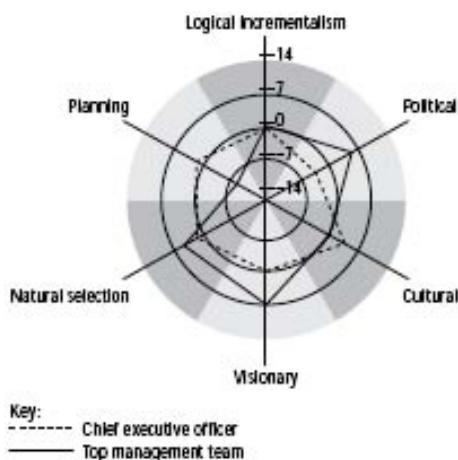


Figure 4 The strategy process

in who managers perceive the competitors to be and, second, how they think about the competitors. Substantial differences have also been revealed between managers' perceptions of competition, and those of customers. Reflecting these differences back into the discussions has proved to be fruitful.

Surfacing and challenging shared assumptions

Probing the intuitive core has also been facilitated by adapting existing strategy techniques and frameworks. For example, we have found that Porter's structural analysis of industries [18] can be extended and developed to expose implicit and shared assumptions. In its most obvious and straightforward



Informed strategy, inclusively developed, effectively delivered

application it enables the team to identify the key competitive forces operating in its industry, and to draw conclusions about industry attractiveness. However, we have found that this approach, though helpful in broadening thinking about competition, can often reside firmly in the zone of comfortable debate. It begins to probe the intuitive core when attention is focused on:

- defining the competition;
- the industry “rules of the game”;
- customer needs.

These discussions can lead to a radical reappraisal of the “real” industry, often caused by shifting the industry definition from a producer’s perspective to a customer’s perspective.

For example, a regional newspaper company initially saw itself as competing with other regional newspaper producers. Its definition of its competitors was narrow, and it saw itself in head-to-head rivalry with three other, very similarly structured newspaper companies. It clearly saw itself as being in the “newspaper business”. However, its perceptions began to alter when it was pointed out that 83 per cent of its revenues came from selling advertising space. Moreover, from the perspective of a potential advertiser (e.g. the owner of a used car lot) the company was not in competition with the “rival” newspaper firms (they were not seen, by the advertiser, to serve the same catchment area). But it was seen to be in competition with local radio, local TV, boardings, mail shots, etc.

The realization that it was primarily a vehicle for advertising (rather than the preferable images associated with being a newspaper) caused a significant (and uncomfortable) shift in the perceptions of certain members of the team. Surfacing the industry “rules of the game” has also proved to be beneficial. The top team from a US-based fork-lift manufacturer identified the following (among others) as industry rules:

- All competitors offer a full line.
- Firms sell to dealers, not the end-user.
- Firms make most profits on servicing and parts sales.
- A good dealer network is essential before you can enter a new market.

By making these taken-for-granted assumptions explicit, they could then be challenged and critiqued: why offer a full line? Why use dealers? Why not just operate in parts and service (for all makes)? This led to a more radical and wide-ranging set of strategic options being generated.

We have found that important areas to probe are the assumptions made about customer needs. This can sometimes

reveal a high level of agreement within the team about what the customer wants, based on the collective and extensive experience of the managers. However, this is rarely supported by hard facts; no one appears to have tried to ask the customers themselves. A typical response from the top team to such a suggestion would be “we have been in this business for 40 years; if we do not know what the customer wants, who does?” Alternatively, where managers have been asked to work individually, there are often considerable differences in perceptions about the dimensions of value in which the customer is interested, and the relative importance of each dimension. This reveals that managers have been carrying quite different assumptions about the needs of the same potential customers. Typically, an outcome of a strategy workshop is a priority to conduct reliable research into customers’ needs.

Exploring the culture

At some point in most workshops the culture of the organization is explored using the “culture web” (see [7], and Figure 5). This has often proved to be a turning point in the workshop, effecting a shift from the zone of comfortable debate into the zone of *uncomfortable* debate. It can also help to probe the intuitive core. Teams seem to enjoy the activity of

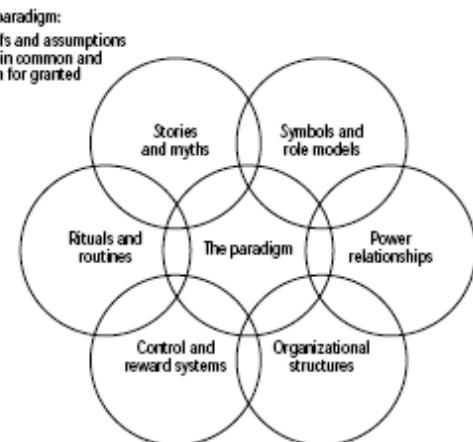


Figure 5 The culture web of an organization

completing the web, which is usually done by (at least) two groups. The similarities of the groups’ webs often validate the technique in the eyes of the managers.

Fruitful dimensions of culture revealed through the activity include: informal power relationships; control systems; embedded routines; and symbols. The “paradigm” refers directly to the intuitive core (one definition would be: the beliefs and assumptions held in common, and taken for granted in the organization). Consequently, managers find it difficult to surface their paradigms. However, when progress has been



Informed strategy, inclusively developed, effectively delivered

made in constructing the outer circles of the web, glimpses of the paradigm are often revealed. With encouragement and reflections from outsiders (in this case the facilitators, or it could be a new member of the management team recruited from another organization) further aspects of the paradigm can be teased out.

With a perspective of the extant culture in place, the changes required to implement a new strategy can be highlighted. This process can reveal major blockages to change stemming from the culture (e.g. routines, power relationships, attitudes).

Sometimes, though, even constructing the culture web has seemed to be a process conducted in the zone of comfortable debate. The webs produced appear bland and uncritical, and little is added to the strategy debate. On one memorable occasion, however, three groups prepared three comfortable webs, but just as we were about to take a coffee break a “maverick” leapt to the front with a “joke” culture web. This was not only very amusing, but also it made powerful points in a light-hearted way. Over coffee, other team members suggested that the “joke” web was a more accurate view of the organization than the safer, bland versions formally presented.

Summary

By feeding back aspects of organizational “reality”, by challenging some shared assumptions, and by exploring the extant culture of the organization the workshop process can help to shift managers’ perceptions of personal risk and strategic change. If these interventions are successful, managers may well conclude that sticking with the status quo is too risky; strategic change is the option that carries lower personal risk.

However, although a manager may conclude that organizational change is necessary, his or her personal role in effecting change may be perceived to carry high personal risk. The perceived risks can be reduced if there is strong and demonstrable commitment to change from the CEO (and high expectations of team commitment to change). That is the “stick”; the “carrot” would be training and support for managers to give them confidence in their ability to tackle new assignments, and recognition of successful change efforts.

In order for a strategy process to be effective it must produce high-quality strategies, which are associated with low perceived personal risk by members of the top team, and hence generate high levels of top team commitment to change. All three elements are required. Strategy discussions can reside predominantly in the zone of comfortable debate. These discussions are unlikely to produce high-quality strategies. Only where the intuitive core of shared, implicit beliefs and

assumptions is effectively probed during the process will high-quality strategies be produced.

Involvement of the top team in the strategy process is a necessary, but not a sufficient, condition to produce commitment to effecting strategic change. There must also be low levels of perceived personal risk associated with the intended strategy. The apparent paradox of high change strategies being associated with low perceived personal risk is achieved by a successful workshop (cell 4) process. This results in the team members perceiving incremental adjustments to the status quo as the high-risk option. By probing and challenging the intuitive core heightened levels of strategic insight are achieved which sensitize the managers to the need for strategic change. However, cell 4 processes are difficult to manage, and they may, even with the best intentions of the team (and facilitators), degenerate into less successful process outcomes (cell 2 or cell 3).

Finally, as was explained in the introduction to this article, these observations have not resulted from a rigorous programme of research. Although there have been some prior studies into strategy processes, our understanding of what is really going on in strategy debates is limited. There would appear to be levels of subtlety operating in such processes which are difficult to access. The emphasis in this article has been focused on ways of probing the cognitive dimension of the intuitive core, but there is clearly an affective, emotional and motivational dimension which is highly influential. Surfacing what individual managers really want to do should be extremely helpful in cutting through the more ritualized aspects of top-team meetings and debates. Further work is also required on assessing the effectiveness of interventions, and on the development of more successful interventions. Drawing on the experience and insights of colleagues from other disciplines (organization behaviour, social psychology), and on the experiences of managers would seem to be an obvious way forward.

Authored by: Professor Cliff Bowman of Stratevolve

Source: Journal of Managerial Psychology Volume 10 · Number 8 · 1995 · pp. 4–12 © MCB University Press

If you would like to discuss how the ideas in this article might apply to your organization or subscribe for regular updates please contact emma.herbert@stratevolve.com

Stratevolve is a niche strategy consulting firm that works with individual executives and management teams to develop effective business strategies, resolve complex business issues and deliver effective change. www.stratevolve.com



Informed strategy, inclusively developed, effectively delivered

REFERENCES

1. Argyris, C., "Double loop learning in organizations", *Harvard Business Review*, September-October 1977.
2. Argyris, C., "Teaching smart people how to learn", *Harvard Business Review*, May-June 1991, pp. 99-109.
3. Schwenk, C., "The cognitive perspective in strategic decision making", *Journal of Management Studies*, Vol. 25, 1988, pp. 41-56.
4. Huff, A.S., "Industry influence on strategy reformulation", *Strategic Management Journal*, Vol. 4 No. 3, 1983, pp. 119-31.
5. Weick, K.E., *The Social Psychology of Organizing*, Addison-Wesley, Reading, MA, 1979.
6. Prahalad, C.K. and Bettis, R.A., "The dominant logic: anew linkage between diversity and performance", *Strategic Management Journal*, Vol. 7 No. 6, 1986, pp. 485-501.
7. Johnson, G., *Strategic Change and the Management Process*, Basil Blackwell, Oxford, 1987.
8. Spender, J.C., *Industry Recipes: An Enquiry into the Nature and Sources of Managerial Judgement*, Basil Blackwell, Oxford, 1989.
9. Lyles, M.A. and Schwenk, C.R., "Top management, strategy and organizational knowledge structure", *Journal of Management Studies*, Vol. 29 No. 2, 1992, pp. 155-74.
10. Janis, I.L., *Victims of Groupthink*, Houghton-Mifflin, Boston, MA, 1972.
11. Janis, I.L., "Sources of error in strategic decision making", in Pennings, J. (Ed.), *Organizational Strategy and Change*, Jossey-Bass, San Francisco, CA, 1985, pp. 157-97.
12. Fischhoff, B., Slovic, P., Lichtenstein, S., Read, S. and Combs, B., "How safe is safe enough? A psychometric study of attitudes towards technological risk and benefits", *Policy Sciences*, Vol. 19, 1978, pp. 127-52.
13. Slovic, P., "Perception of risk", *Science*, Vol. 236, 1987, pp. 280-85.
14. Argyris, C., "Education for leading-learning", *Organizational Dynamics*, Vol. 21 No. 3, Winter 1993, pp. 5-17.
15. Bowman, C. and Johnson, G., "Surfacing competitive strategies", *European Management Journal*, Vol. 10 No. 2, 1992, pp. 210-19.
16. Bailey, A. and Johnson, G., "How strategies are developed in organizations", in Faulkner, D. and Johnson, G. (Eds), *The Challenge of Strategic Management*, Kogan Page, London, 1992.
17. Daniels, K., Johnson, G. and de Chernatony, L., "Differences in cognitions of competition", *British Journal of Management*, 1993.
18. Porter, M., *Competitive Strategy*, Free Press, New York, NY, 1980.