Issues management as a basis for strategic orientation

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Abstract

A firm's strategic orientation *is a complex function of many factors that are both internal and external to the organisation, and managerial attempts to exert control over these forces have resulted in a wealth of models and prescriptions for performing the many functions of strategic management. The* issues management *(IM) approach provides a solid foundation for addressing the important task of environmental monitoring. In this paper, the authors present an alternative view of issues management by focusing attention on the organisational prerequisites for it to be performed properly. This approach is based on the 'Intelligence – Design – Choice – Implementation – Feedback (Learning) – Intelligence' model of decision making. The authors argue for a reorientation of issues management in the direction of increased emphasis on the diagnostic (intelligence) activities. Their conclusion is that thinking strategically implies that the organisation actively employs systems thinking as the means for uncovering assumptions, identifying and classifying signals from the environment, and generating and testing hypotheses about the conclusions drawn from this process.*

KEYWORDS: issues management, strategic thinking, mental models, systems thinking

INTRODUCTION

A firm's strategic orientation is a complex function of many factors that are both

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internal and external to the organisation. Adding to the complexity is the fact that these factors interact with each other, creating an environment that is characterised by uncertainty, causal ambiguity and the presence of multiple stakeholders, to mention just a few of the main aspects. Managerial attempts to exert control over these forces have resulted in a wealth of models and prescriptions for performing the many functions of strategic management. Many schools of thought have been developed (Mintzberg and Waters 1994) but none have proven to be the 'silver bullet' that provides practising managers with a foolproof procedure for performing this important task.

There is one approach, however, that appears to provide a solid foundation for developing an important role of strategic management, the role of environmental monitoring. This general approach focuses on identifying and understanding the forces that are at play in the firm's environment (internal and external) and how they shape it. The approach is *issues management* (IM). In this paper, an alternative view of issues management is provided by focusing attention on the organisational prerequisites that must be in place in order for it to be performed properly. This approach is rooted in the 'Intelligence — Design — Choice — Implementation — Feedback (Learning) — Intelligence' model of decision-making originally attributed to Herbert Simon and his colleagues (Simon 1997). Most, if not all, formal models of strategic management appear to focus on the Design and Choice phases of the process. Indeed, Mintzberg and his colleagues (1976) monitored working top managers in a wide range of organisations and found that the majority of their time was spent in these two phases of decision making. The implication of this time distribution is that the 'problem' was assumed to be given. There was relatively little managerial activity involved in defining what the 'problem' actually was. Problem definition, of course, is the essence of strategic management. This is also where issues management shows its value. However, as with strategic planning models, most IM models also tend to devote less time to the diagnosis phase and more on the downstream aspects of the process. This is seen as a significant limitation of current IM models.

This paper argues for a reorientation of issues management in the direction of increased emphasis on the diagnostic (intelligence) activities. Accomplishing this requires a rethinking of how to perform IM and how it is implemented in organisations. Rather than being only a top-level strategic function, truly successful IM programs must be anchored at all levels of the organisation so as to leverage the knowledge, insights and networks of all the internal stakeholders. The methodologies for accomplishing this are found in the literature of organisational learning and its operationalisation through systems thinking.

The paper is organised in the following manner. First, there is a brief review of the traditional approaches to strategic planning, beginning with a discussion on the need for strategic thinking. Then the development of issues management models is discussed and the models are compared and contrasted with strategic planning models. Following this introductory material, the requirements for an organisation-wide approach to issues management is outlined. It is argued that thinking strategically implies that the organisation actively employs systems thinking as the means for uncovering assumptions, identifying and classifying signals from the environment, and generating and testing hypotheses about the conclusions drawn from this process. This, in turn, contributes to the overall strategic orientation of the firm.

A NEED FOR STRATEGIC THINKING

According to Ansoff (1990), the level of changeability today is at such a state that formal strategic planning procedures are no

longer sufficient to ensure a timely response to future turbulence. There are many reasons for this, including the explosive advances in technology and its effect on the economic environment. But there are other forces that are relatively new, such as increased stakeholder involvement in business operations. This is reflected in increased concern for corporate social and environmental responsibilities and in a more fundamental debate about the nature and purposes of business. Ansoff cited failures of certain organisations in anticipating these socio-political pressures as evidence for his claim. This can be interpreted to mean that there is an even greater need today for people who can truly think strategically; people who are not confined by process and who are able to integrate intuition and imagination with formal analysis. Hayes (1985) said that *strategic thinking* is a requirement for managers in order to:

- understand the appropriate external environment
- understand the capabilities and objectives of the organisation
- understand the connections between loosely connected events
- recognise several influencers
- sense new opportunities
- see a variety of strategies or solutions.

The ability to 'manage the mess' and to create 'sanity' out of an unpredictable environment is crucial for an organisation and can have a significant impact on organisational performance and long-term viability. The six managerial responsibilities identified by Hayes can be satisfied in a number of ways. The responses can range from simply relying on past procedures and decisions, with minor adjustments, as the basis for future decisions, to imaginative leaps that amaze and delight the market while at the same time leaving the competition bewildered and demoralised. Prahalad and Hamel (1990) have stated that strategic thinking needs to be a core competency of an organisation, requiring that managers need to develop strategic insights to guide the company. Christensen (1997) found that strategic thinking tends to be lacking as a managerial core competency in organisations that find it difficult to change.

Insightful and creative strategic thinking is the key to organisational performance and success in turbulent environments. Formal planning and issues management systems have been developed with the intention of realising this kind of performance, but it is felt that, in general, they have not managed to fulfil their promises. The alternative approach that is presented here requires a deeper appreciation of what it means to 'think strategically'. We return to this issue after a very brief review of the current state of the relationship between IM and strategic planning.

IM AND STRATEGIC PLANNING

Goodstein *et al.* (1994) defined strategic planning as what is done with respect to organisations' envisioning and developing the necessary procedures and operations to achieve their futures. An implicit requirement for superior strategic planning is that it be 'proactive'. Issues management is an activity that provides organisations with ways of identifying and addressing emerging problems and opportunities early on, so that they are not 'surprised' (Ansoff 1990) by them in ways that adversely affect their success. As a managerial activity, it encompasses processes that reflect strategic thinking, which is a combination of both creative and analytical abilities that result in superior strategic planning.

Until issues management was named and formalised as a model by W. Howard Chase in 1976, it was treated as an ad hoc process rather than a planned, continuous activity (Reeves 1993). Subsequent to Chase's work, the word 'strategic' entered the picture, issues were defined as 'strategic issues', and the issues management model was routinised and systematised. Consequently, formal sys-

tems such as strategic issues management systems (SIMS) were developed and became part of the management literature, recognising its usefulness as an aspect of the strategic planning process. Camillus and Datta (1991) described SIMS as 'a set of organizational procedures, routines and processes devoted to perceiving, analyzing and responding to strategic issues.'

A SIMS is a means of enhancing an organisation's capacity to adapt (Dutton and Ottensmeyer 1987), and they vary according to the types of issues being traced and the scope of activities involved. Some IM systems monitor internal issues while others focus on the external environment. Their popularity and the key to their success is their usefulness in establishing processes and routines to deal with problems and thereby ensuring organisational adaptation and survival.

Most authors see SIMS as designed to be flexible, sensitive and action oriented. Their objective is to reduce the possibility of strategic surprises. This process assists organisations to facilitate the realisation of their objectives by helping them anticipate and respond to changes in the external environment. Those issues that are monitored and analysed are considered relevant and vary from organisation to organisation (Ottensmeyer and Dutton 1989; Camillus and Datta 1991). They can include demographics, lifestyles, resources, technology, public attitudes, government policies and economic trends.

INTEGRATED PLANNING SYSTEMS MODEL

Many researchers recommend the integration of issues management and strategic planning (Camillus and Datta 1991; Heath 1988; Marx 1986; Tucker and Trumpfheller 1993). Camillus and Datta (1991) attempted this as they melded the two areas of issues management and strategic planning into a formal system. They described strategic planning systems (SPS) as 'a set of organizational task definitions and procedures for ensuring that pertinent information is obtained, forecasts are made, and strategic choices are addressed and evaluated in an integrated, internally consistent and timely fashion' (p. 68).

A typical, stylised SPS framework, according to Camillus and Datta, consists of the following activities, all of which reflect some components of issues management models:

- environmental analysis
- defining goals and objectives
- internal analysis (evaluating strengths and weaknesses)
- formulation and evaluation of alternative strategies
- strategy selection
- operational plans and implementation
- performance evaluation and feedback.

Typically, the planning cycle is periodic, depending on the nature of the business and industry and the degree of environmental uncertainty or turbulence. According to Camillus and Datta, comprehensive planning in complex organisations normally should not be undertaken more frequently than 3–5 years. However, Hayes (1985) noted that environmental volatility and changes can result in drastic deviations from forecast, making comprehensive strategies obsolete. Therefore, there is a need to combine strategic planning with issues management in order to capture changes that occur at different rates. Table 1 highlights the differences in the systems.

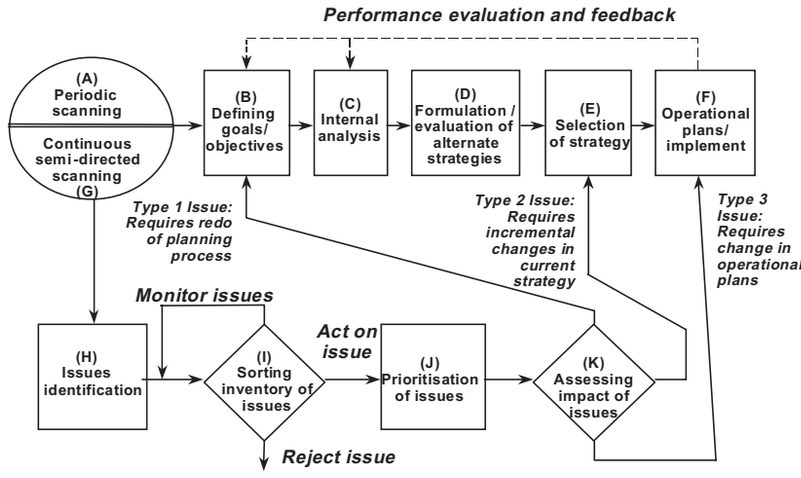
By combining the periodic nature of SPS and the continuous nature of SIMS, Camillus and Datta (1991) created a model incorporating the basic steps of both systems, which they call the 'integrated planning systems framework' (see Figure 1).

One benefit of integrating strategic planning systems and strategic issues management systems is that organisations can ensure that the strategic plan is consistent with major developments in an organisation's sociopolitical environment and among its operations (Arrington and Sawaya 1984). Properly

Table 1: Differences in SPS and SIMS (Camillus and Datta, 1991)

SPS	*SIMS*
• Periodic activities	• Continuous
• Responds to strong signals	• Picks up 'weak, not so obvious' signals
• Issues directly relatable to organisation	• Receptive to issues having less direct or immediate effects
• Characterised by a vision of what the organisation aspires to be	• Ascertains consequences of identified issues to focus actions that will reduce negative impacts and/or exploit opportunities
• Oriented toward existing organisation; influenced by existing structure	• Oriented to non-traditional modes of thought and action
• Biased towards a goal-means sequence in strategy formulation	• Given its ad hoc character is limited to means-goal sequence

Figure 1: Integrated planning systems framework



designed and implemented, issues management can add the three activities of forecasting, policy development and advocacy communication to strategic planning.

CRITIQUE AND SUMMARY OF THE MODELS

Ehling and Hesse (1983) criticised the SIM model as nothing more than everyday management activities that all managers do and stated that it is not at all innovative. They further argued that IM just puts a label to the use of survey and other issues-monitoring strategies. Zabriskie and Huellmantel (1991) asserted that issues management is just another buzzword for strategic planning.

Another criticism of the SIM model, but from another dimension, came from Wilson (1990), who viewed the model as being culturally bound. She reasoned that if the model is based on ethnocentric assumptions

that it cannot be universally applied if IM is to be used in the many nations and cultures of the world. Wilson admonished practitioners and researchers to be aware that IM emerged as a function within US corporations and therefore focuses on US public policy issues. Today's international business activity and globalisation efforts mean that we must adjust the basic model to account for the multinational nature of corporate business.

Kvam (1996), who found the cultural assumptions of the IM model to be a major flaw in the handling of the Brent Spar case by the Shell Group, confirmed this criticism. Well-known for their scenario planning, Shell, in its negotiations regarding the disposal of the oil platform, Brent Spar, encountered major problems from a stakeholder group they neglected, Greenpeace, and in particular the German branch. Although the company had adequately negotiated a 'peaceable' agreement with authorities in Great Britain they totally overlooked the militancy of the 'green' elements in Germany. This group reacted violently when Shell refused to back down on their decision to sink the platform in the North Sea and cost the company a good deal of money and ultimately damaged their reputation.

One element repeated in the literature is the models' linkage to executives or upper management. The activities in the models are recognised as needing to be performed by upper management, are only taken seriously when done by upper management, and are a way of thinking that successful executives in top-level positions have employed at some time in their career (Janis 1992).

Unfortunately, normative theory as described above, presents a situation that is difficult to practise in reality. Arguably, those in a position, or those at the levels where strategy is created, are often those most removed from the everyday world. Further, people at higher levels typically will be insulated from the weak signals that issues management systems must be sensitive to. Often upper management responses tend to be focused on financial/economic issues and not necessarily more subtle lifestyle resources, public attitudes, etc.

What is needed is an approach to issues management that allows everyone in the organisation to contribute to the process.

Table 1 and Figure 1, respectively, identify the differences between traditional strategic planning systems and strategic issues management systems and show how they can be joined into an integrated approach to strategic management. What is not clear in this framework are the organisational competencies and structures that lie behind the individual components and which are necessary in order to properly perform issues management. Without these competencies and structures, the outcomes of implementing a formal system will be disappointing, at best.

RETHINKING SIMS

IM presents an organisational challenge because its purpose is to detect 'weak' and 'not so obvious' signals from the environment (Table 1). As mentioned above, it also entails individual as well as organisational challenges. These systems (SIMS) require 'non-traditional' modes of thought, posing significant organisational and individual challenges that are difficult, if not impossible, to overcome using traditional approaches to implementation. In fact, most organisations implicitly reject the sort of thinking and organising required for effective IM because they tend to break with the status quo of how they deal with information gathering, processing and dissemination. Effective IM requires nothing less than a fundamental revision of how the organisation views itself, its relationships with its internal stakeholders and its place in the external environment; this is an enormous challenge for most organisations.

Fortunately, there exists guidance on how to work towards developing the requisite

organisational competencies. The source lies in the burgeoning literature on organisational learning, and draws especially on the areas of organisational cognition and systems thinking. Although organisations are not alive in any biological sense, the 'living systems' metaphor is useful in understanding how an organisation perceives itself in the many roles that it plays in its functioning towards achieving its goals. The central concept here is that of the 'mental model', which is loosely defined as the organisation's (or the individual's) personal model of how things work in a given context. This includes the relevant variables, their relationships, and assumptions that make for logical connections between them.

Systems thinking is a framework and a methodology for formally structuring the reality that organisations and their stakeholders exist within. Systems thinking is 'a school of thought that focuses on recognising the interconnections between the parts of a system and synthesising them into a unified view of the whole' (Anderson and Johnson 1997). It contributes to surfacing and testing hidden assumptions with respect to aspects of the environment and competitors, it can help to identify high leverage action points in a complex system and it can also make us more aware of the full set of consequences of actions that are under consideration. Essentially, it is an approach to thinking that focuses on relationships rather than details, accepts that boundaries are usually not clearly defined and that reductionist thinking impedes the development of the ability to understand behaviour of complex wholes. Systems thinking and mental models are central concepts in the area of organisational learning. Reviews of this field are found in Fiol and Lyles (1985), Huber (1991), Marvis (1996), Nevis *et al.* (1995), Senge (1990) and Weick (1991), for example.

The notion of mental models plays a central role in issues management, although the traditional IM literature does not recognise it in any explicit manner. 'Reality' is complex, filled with conflicts and uncertainty and is far richer than any individual's or organisation's ability to comprehend in its entirety. Consequently, we rely on simplifications of reality in order to be able to orient ourselves and to function in it. By functioning, we mean selecting and interpreting inputs from the outside according to some internal logic in order to produce action that moves us closer to a goal state. The world is dynamic and continually changing so the perceiving, processing and acting steps are ongoing and are linked together in a loop structure through a feedback step that enables us to learn and adjust our behaviours in light of a new situation at a future time.

Cognitive psychologists have extensively studied this process in individuals (Hogarth 1987; Kahneman *et al.* 1982). This has resulted in an impressive accumulation of insights about the factors that influence the selection of data, that is, what influences the choice of the specific data we select from the totality of inputs with which we are presented. The operational mental model that guides an individual's behaviour in data selection and processing is a function of, among other things, education, life experiences, family, genetics, expectations, work position and experience, and so on. These factors create a context, the mental model, which plays a decisive role in the filtering process. Essentially, this means that important information may be ignored or overlooked simply because the individual's mental model does not recognise it as being important.

In a similar manner, organisations can be said to operate under a generalised form of the mental model concept. Here, however, the organisational mental model is shaped by the contributions of the organisational members, as well as by the unique cultural and structural aspects of the organisation. The effect is the same as in the individual: information can be overlooked because the organisation was not aware of its importance.

The link between this organisational phenomenon and issues management is clear, especially with regard to the need for being able to pick up weak and non-obvious signals. Added to this, the problems of getting an important piece of information through an organisation from the receiver at one level to a decision maker at another level further complicates the task of the issues owner.

It is important to keep in mind that mental models are not 'bad' as such. In fact, they are powerful and useful tools that both organisations and people rely on in order to get on with life. If each and every piece of information were treated as new and unique, we would quickly be flooded by masses of data that are not necessarily relevant to the task at hand. So filtering is needed to manage the sheer quantity of information. However, to the extent that mental models are used uncritically and without periodic reassessment, they can slowly become outdated and may have biases that move them further from being a simple, but true, representation of the reality that they seek to represent. It is at this point that they can become more of a liability than an asset to the organisation (and to an individual).

A SOLUTION: SYSTEMS THINKING

We now begin to see the full scope of the task of instituting a strategic issues management system. One of the fundamental requirements is to develop organisational competence in uncovering and working with mental models. This is easily said but not so easily accomplished. In both individuals as well as organisations, they are deeply rooted in the unconscious and automatic routines that have been developed over many years. Under relatively tranquil business conditions, where change is slow and more evolutionary than revolutionary, one can argue that SIMS are not as important and that the existing mental models may well be adequate for the task. However, in most business environments since the initial oil crisis of the early 1970s and the increasing interest of stakeholders in the 1980s and 1990s, tranquility and stability have not been the watchwords of commerce. Yet, changes in organisations' perceptions of the business environment have not kept pace with the external changes that they are exposed to. There can be many possible explanations for this lag, but one important explanatory factor is the relative inflexibility of mental models and the lack of organisational change skills on the part of managers. This is the challenge for issues management.

Initiating processes to begin working with individual and organisational mental models is a significant challenge. The difficulty lies in the fact that these structures are so deeply embedded in the unconscious that people lack the skills necessary to surface, test and either modify or abandon them. Another contribution from the organisational learning field is a methodology for assisting in this process. Systems thinking represents an alternative approach to looking at the world that takes a different perspective on the problem of formalising complex situations.

The process of applying systems thinking to describing a situation and then communicating that description to another stakeholder captures the essence of working with mental models. The key step in this application is to encourage an environment where stakeholders are free to present their current understanding and interpretation of issues and to inquire into the reasoning that others employ in their efforts to understand the same issue. The important function that is highlighted in such organisational processes is that of surfacing and testing the assumptions that everyone makes to 'fill in the holes' where exact knowledge is not available. Assumption surfacing and testing has long been recognised as an important aspect of organisational planning (Mitroff 1983). In the context of IM it becomes especially crucial in that erroneous assumptions em-

bedded in the organisation's mental model may blind it to exactly the signals that are intended to be detected. Table 2 compares the traditional mode of thinking against the systems thinking alternative (Richmond 1997).

Systems thinking further contributes to the organisation's ability to understand the immediate and delayed effects of issues that can be described as dynamic processes. Additionally, application of systems thinking enables the organisation to find the high leverage intervention points that can enable the organisation to better utilise its resources in response to the issue, regardless of where it may be in its life cycle.

The organisational competencies needed for successful issues management also rely on the ability of the organisation to be able to think 'out of the box', one of the distinguishing features (non-traditional modes of thought and action) under the SIMS column in Table 1. For example, a well-known scenario consultancy employs artists, students and other 'non-traditional' colleagues in its scenario analysis work. These people are brought into the process because they possess rather different mental models that are attuned to other types of information that can be relevant. This, in a sense, is issues management applied to strategic managerial learning. There must be a high degree of openness and tolerance on the part of the organisation to alternative ways of framing questions and for experimentation. These are but two characteristics that describe important aspects of an active learning organisation.

The heart of an IM system lies in the processes that the organisation employs in learning about its environment, both internal

Table 2: The thinking modes compared

Traditional thinking	*Systems thinking*
• Static thinking Focusing on particular events	• Dynamic thinking Framing a problem in terms of a *pattern of behaviour* over time
• System-as-effect thinking Viewing behaviour generated by a system as driven by external forces	• System-as-cause thinking Placing responsibility for a behaviour on *internal actors* who manage the policies and plumbing of the system
• Tree-by-tree thinking Believing that really knowing something means focusing on the details	• Forest thinking Believing that, to know something, one must understand the context of *relationships*
• Factors thinking Listing factors that influence or are correlated with some result	• Operational thinking Concentrating on getting at causality and understanding how a behaviour is *actually* generated
• Straight-line thinking Viewing causality as running one way, with each cause independent from all other causes	• Closed-loop thinking Viewing causality as an ongoing *process* with the 'effect' feeding back to influence the causes, and the causes affecting one another
• Measurement thinking Searching for perfectly measured data	• Quantitative thinking Accepting that one can always *quantify*, although not always measure
• Proving-truth thinking Seeking to prove models to be true by validating with historical data	• Scientific thinking Recognising that all models are working *hypotheses* that always have limited applicability

and external. Here we see the mental model concept playing a decisive role as the ability to engage in non-traditional thinking and action comes from an organisational understanding of how mental models guide behaviour, which is discussed in this paper. For a discussion and examples of how to employ methodologies for framing and uncovering mental models see Wiig (2002).

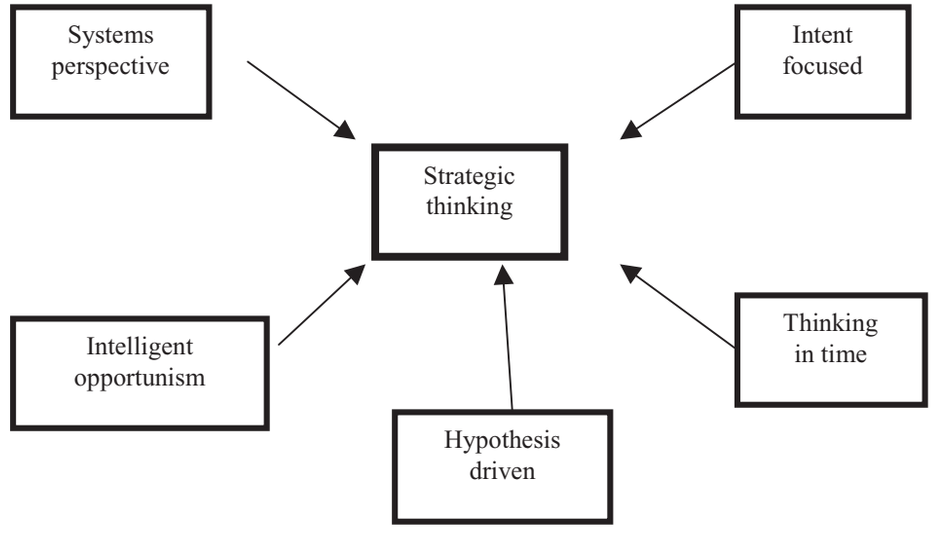
CONCLUSION

Over the last years issues management has matured and grown in significance. The primary functions of planning, monitoring and analysing are recognised as integral parts of strategic management (Ansoff 1980, 1990; Camillus and Datta 1991; Ottensmeyer and Dutton 1989). Few would argue that IM does not have a place in an organisation's strategic processes. In 1989 Frank Popoff, then-president of the Dow Chemical Company, listed, along with the firm's goal of ensuring the fundamentals of their business and promoting long-term profit and growth, the task of issues management. According to Popoff, the resolution of key issues is a determinant of long-term comparative performance of companies and the absolute performance of industries and economies.

This paper has discussed the need for organisations to view issues management as providing the basis for an overall strategic orientation. For as Liedtka (1998) stated, it is paramount that we remember that it is individuals who think strategically, not organisations. But it is organisations that must provide the framework for making effective issues management occur. The aspects of mental models and systems thinking, from the organisational learning literature, provide the basis for a rethinking of how issues management should be accomplished. This is supported by Liedtka, who described five elements (Figure 2) that she believed define strategic thinking: a systems perspective, intent-focused, intelligent opportunism, thinking in time and hypothesis-driven.

A systems perspective deals with a person's mental model, particularly one that encompasses viewing things as 'complete end-to-end systems of value creation' (Liedtka 1998: 122). This also includes being able to understand the interdependencies within the system and also the external and internal

Figure 2: The elements of strategic thinking, adapted from Liedtka (1998)



context of the organisation. Being intent-driven, according to Liedtka, means having a focus 'that allows individuals within an organisation to marshal and leverage their energy, to focus attention, and to concentrate for as long as it takes to achieve a goal' (p. 122).

Intelligent opportunism has to do with being flexible so that it is possible to take advantage of emerging strategies. Thinking in time implies that strategic thinking links past, present and future. This element, for example, is directly related to dynamic thinking (see Table 2). The hypothesis-driven element of strategic thinking mirrors the scientific process as it means generating hypotheses and testing them (see scientific thinking in Table 2). She believes that strategic thinking can be both creative *and* critical, asking 'what if?' and then 'if . . . then . . . ?'

As pointed out by Kuvaas (1998), the types of activities described here as representing strategic orientation, usually reflect both an organisational and an individual level of analysis. Combining current issues management systems with practices from organisational learning, which means linking individuals' abilities to contribute to strategic processes at all levels of the organisation with an organisation's ability to exploit or use these abilities can only give tomorrow's organisation unique competitive advantage.

References

Anderson, V. and Johnson, L. (1997) *Systems Thinking Basics: From Concepts to Causal Loops*. Waltham, MA: Pegasus Press.

Ansoff, H. I. (1980) 'Strategic Issues Management', *Strategic Management Journal*, 1: 131–48.

Ansoff, H. I. (1990) 'General Management in Turbulent Environments', *Practising Manager*, 11(1): 6–27.

Arrington, C. B. Jr and Sawaya, R. N. (1984) 'Management of Public Affairs: Issues Management in an Uncertain Environment', *California Management Journal*, XXVI (4): 149–60.

Camillus, J. C. and Datta, D. K. (1991) 'Managing Strategic Issues in a Turbulent Environment', *Long Range Planning* 24: 67–74.

Christensen, C. M. (1997) 'Making Strategy: Learning by Doing', *Harvard Business Review*, 75(6): 141-56.

Dutton, J. E. and Ottensmeyer, E. (1987) 'Strategic Issues Management Systems: Forms, Function and Contexts', *Academy of Management Review*, 12(2): 355–65.

Ehling, W. P. and Hesse, M. B. (1983) 'Use of ''Issue Management'' in Public Relations', *Public Relations Review*, 9: 18–35.

Fiol, C. M. and Lyles, M. A. (1985) 'Organizational Learning', *Academy of Management Review* 19(4): 803–13.

Goodstein, J., Gautam, K. and Boeker, W. (1994) 'The Effects of Board Size and Diversity on Strategic Change', *Strategic Management Journal*, 15(3): 241-51.

Hayes, M. (1985) 'Developing Managers for Strategic Management', in W. D. Guth (ed.), *Handbook of Business Strategy*, Boston, MA: Warren, Gorham & Lamont, ch. XXV.

Heath, R. L. and Associates (1988) *Strategic Issues Management*, San Francisco, CA: Jossey-Bass.

Hing, A. (1990) 'Issues Management and Influencing Decisions', *Practising Manager*, 11(1): 42–44.

Hogarth, R. M. (1987) *Judgment and Choice* (2nd edn). New York: John Wiley and Sons.

Huber, G. P. (1991) 'Organizational Learning: The Contributing Processes and the Literatures', *Organization Science* 2(1): 88–115.

Janis, I. (1992) 'Causes and Consequences of Defective Policy-Making: A New Theoretical Analysis', in F. Heller (ed.), *Decision-making and Leadership*, Cambridge: Cambridge University Press.

Kahneman, D., Slovic, P. and Tversky, A. (1982) *Judgment under Uncertainty: Heuristics and Biases*. Cambridge: Cambridge University Press.

Kuvaas, B. (1998) 'Strategic Issues Diagnosis: The Roles of Organizational Scanning, Information Processing Structure of Top Management Teams, and Managers' Cognitive Complexity', doctoral dissertation for the Norwegian School of Economics.

Kvam, J. (1996) 'The Transnational Dimension of Issues Management: Lessons from Brent Spar', dissertation for fulfillment of MBA,

Henley Management College.
Liedtka, J. M. (1998) 'Strategic Thinking: Can it Be Taught?, *Long Range Planning*, 31(1): 108–19.
Marvis, P. H. (1996) 'Historical Foundations of Organization Learning', *Journal of Organizational Change Management,* 9(1): 13–31.
Marx, T. G. (1986) 'Integrating Public Affairs and Strategic Planning', *California Management Review*, XXIX (1): 141–47.
Mintzberg, H. and Waters, J. A. (1994) 'Of Strategies, Deliberate and Emergent', in B. De Wit and R. Meyer (eds.), *Strategy: Process, Content, Context*. St Paul, MN: West Publishing.
Mintzberg, H., Raisinghani, D. and Theoret, A. (1976) 'The Structure of ''Unstructured'' Decision Processes'', *Administrative Science Quarterly* 21 (June): 246-75.
Mitroff, I. I. (1983) *Stakeholders of the Organizational Mind*, San Francisco: Jossey-Bass.
Nevis, E. C., DiBella, A. J. and Gould, J. M. (1995) 'Understanding Organizations as Learning Systems', *Sloan Management Review*, Winter: 73–85.
Ottensmeyer, E. J. and Dutton, J. E. (1989) 'Interpreting Environments and Taking Action: Types and Characteristics of Strategic Issue Management Systems', in C. Snow (ed.), *Strategy, Organization Design, and Human Resource Management*, London: JAI Press.
Prahalad, C. K. and Hamel, G. (1990) 'The Core Competence of the Corporation', *Harvard Business Review*, May–June: 79–91.
Reeves, P. N. (1993), 'Issues Management: The Other Side of Strategic Planning', *Hospital & Health Services Administration*, 38(2): 241.
Richmond, B. (1997), 'The ''Thinking'' in Systems Thinking. Can We Make it Easier to Master?', *The Systems Thinker*, 8(2).
Senge, P. M. (1990) 'The Leader's New Work: Building Learning Organizations', *Sloan Management Review*, Fall: 7–23.
Simon, H. A. (1997) *Administrative Behavior* (4th edn). New York: The Free Press.
Tucker, K. and Trumpfheller, B. (1993) 'Building an Issues Management System', *Public Relations Journal*, 49(11): 36-37.
Weick, K. E. (1991) 'The Nontraditional Quality of Organizational Learning', *Organization Science*, 2(1): 116–24.
Wiig, R. (2002) 'Mutual Learning in Practice', in P. S. Brønn and R. Wiig (eds), *Corporate Communication: A Strategic Approach to Building Reputation*. Oslo: Gyldendal.
Wilson, L. J. (1990) 'Corporate Issues Management: An International View', *Public Relations Review*, 16(1): 40–51.
Zabriskie, N. B. and Huellmantel, A. B. (1991) 'Developing Strategic Thinking in Senior Management', *Long Range Planning*, 24(6): 25–32.