

## Group Decision and Negotiation in Strategy Making

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### **Abstract**

For a large number of organisations effective delivery of strategy depends upon the psychological and emotional commitment of the Top Management Team (TMT) thus involving group negotiation and decision making. Computer based group support promoting open debate and developing commitment is therefore important and illustrated through examples from the presenter's large number of strategic interventions.

### **Introduction**

Group Decision Support Systems have been used in variety of environments addressing a wide range of situations. However, their use with "top management teams" (TMT's) for helping make strategy has not been widely or often reported. In part we might suppose that this has been because their use demands that there is the opportunity to work with senior people in organizations and introduce them to GDSS's within this context. It may also be because "the client" is keen to get help with making strategy rather than with the use of GDSS's and so focuses on strategy processes. As a means of reducing this paucity, this paper reports on the way in which a specific GDSS has been used within the context of clients who are persuaded about the appropriateness of a strategy making approach and then introduced to a GDSS as a practical way of implementing the approach to developing strategy. We devote the first part of the paper to discussing the critical features of our approach to strategy making that leads inevitably to considerations of the use of a GDSS. The second part of the paper discusses the use of the GDSS in relation to these specific demands of strategy making. The intention of the paper is to suggest that there are designed characteristics of GDSS's (including the specific one introduced, but also of others currently available) that can importantly make strategy making more effective and likely to be delivered.

### **On the nature of strategic management**

Adapted from a personal statement of Bernard Taylor, March 1991.

**Myth 1: "The Cookbook"**. This is the philosopher's stone of strategic planning, which turns all plans to gold. It consists of a loose-leaf book of pro-formas which, when com-

pleted by the planner or the senior management team, will produce the ideal corporate planning manual. The latest version comes with a CD-ROM and videotapes. Unfortunately, if you try to use the Cookbook, you will find it does not fit your business.

**Rule 1: “Planning Must Be Custom-made For Each Organization”.**

**Myth 2: “The Paper Chase”.** Another common heresy is that the role of the planner is to sell, install and maintain a formal planning procedure. The planner or senior executive who concentrates on this quickly loses credibility with operating managers.

**Rule 2: “Planning Should Focus On Strategic Issues”.**

**Myth 3: “Paralysis by Analysis”.** The large planning departments of the late 1970s developed techniques such as business portfolio analysis and scenario planning, but they concentrated management’s attention on analysis rather than action.

**Rule 3: “Planning Should Turn Strategy Into Action”.**

**Myth 4: “Planners Should Make Strategy”.** Even the best planners and consultants are prone to believe that they can produce better strategy than operating managers. In a way they are right: they can write better prose, make more accurate calculations and formulate more elegant strategies. But all this is secondary. The key characteristic of a first class strategy is that it has the total commitment of the organization behind it.

**Rule 4: “The Operating Managers Should Make Strategy”.**

**Myth 5: “The Illusion of Certainty”.** In many companies top managers insist that plans should be specific and optimistic. Pessimism is unmanly. But in today’s business environment there are many uncertainties and they should be made explicit.

**Rule 5: “In an Uncertain Environment, You Must Plan For Different Eventualities”.**

**Myth 6: “The Secret File”.** Communication studies suggest that top managers take their concern for security too far. This leads employees to believe that the board has no clear objectives, strategies or ideas about the future direction of the company.

**Rule 6: “First Sell Your Strategies to Your Own Staff”.**

**Myth 7: “Strategy Making Is Simple”.** Good strategies seem obvious in retrospect, but for most managers strategic thinking and management requires a complete reorientation in thinking.

**Rule 7: “Managers Need to be Trained in Strategy Making and Strategic Analysis”.**

**Myth 8: “The Company Blueprint”.** The Strategy is often seen as a comprehensive detailed plan which the board will use to control the future development of the company. But there is a wider political and social environment which they do not control. In this wider world, management must recognize.

**Rule 8: “The Corporate Plan Should Provide a Basis For Negotiation With a wide range of powerful AND interested Stakeholders: Governments, Unions, And Special Interest Groups?”**

Although these are almost “truisms” they do capture some of the essential features of strategy making. We shall relate to them as the paper unfolds, as we ask what contributions GDSS’s can make to working within these rules. We shall refer to them using the shorthand of “TRX”, standing for Taylor’s Rule X.

The first part of the paper now considers the social processes of strategy making, the requirements of the process and its relationship to the role a GDSS may play. In discussing the process requirements we draw upon the theory that guides our own approach to strategy making based on 15 years of work with TMT’s (Eden and Ackermann 1998). The second part of the paper seeks to demonstrate the development of strategy content through use of GDSS facilitated processes.

Our own summary of the key elements of strategy making are as follows:

- The crucial significance of *political feasibility*.
- The role of *participation*.
- Emphasis on *stakeholder management* as well as stakeholder analysis.
- Thinking about *alternative futures* within the overall process of strategy making.
- The link between *strategy making and organizational change*.
- The contribution of the strategy making process for *organizational learning, team development and for strategy delivery*.

### **The social process demands of strategy making**

Reflecting the emphasis within Taylor’s remarks we argue also that the single, most important, consideration in managing strategic change in organizations is the first of our key elements of strategy making listed above: political feasibility. It is this emphasis on developing strategy that will change organizations rather than be analysis that gathers dust in the bottom drawers of the senior managers (TR3).

There is little in depth attention in the strategy literature to issues of political feasibility and “making things happen” – turning strategy into action (although John Harvey-Jones, as a practitioner CEO of ICI, wrote an excellent strategy book called “Making it Happen” (Harvey-Jones, 1988)). Somehow the rational processes of analysis are expected to carry the day. Thus, political feasibility, in so far as it is addressed, is expected to derive from the way in which a proposal can be demonstrated to be rational – a case can be made, reasons stated through attention to the facts, and to the relationship between the means and ends. This is what Simon (1976) called means/ends, or substantive, rationality. Even with this acknowledgement, the majority of attention remains focussed upon the capture of the substantive material, or data, and the associated forms of analysis and data manipulation. It is attention to these processes that are taken to be the test of whether or not the strategy making outcomes are correct. Little, or no, attention is paid to the *social processes* of delivering, discovering, and negotiating the data, determining and manipulating its meaning, and agreeing the strategic direction. Similarly, some GDSS’s are dominated, in practice, to assisting in the analysis of options – the group is there to contribute to the analysis. In the use of these systems there is little attention to the role the GDSS plays in facilitating a social

process – beyond that of an interest in group productivity. However, more recently there has been a greater recognition of the role that a GDSS may play in helping develop teams, manage negotiation, and help change the mind-sets or cognition of participants (TR7). The effective team will depend upon each team member offering different ways of understanding even though they may use the same problem label. It does, at the very least, mean a commitment to shared values (Peters and Waterman 1982).

As noted in Figure 1, addressing political feasibility is not only concerned with managing the process of strategic change but also with carrying out change that creates *coordinated and cooperative action*. Thus, using methods that support and acknowledge a negotiation process are fundamental – social and psychological negotiation is the bedrock of political feasibility. Strauss and Schatzman (1963) introduced the idea that organizations (hospitals, in their case) are a *negotiated order*. Negotiating a *new* order is the most crucial element of political feasibility. There are two aspects to the notion of organizations as a negotiated order. First, there is that aspect that arises from the attempt by members of the organization to change the nature of the organization so that it shifts its purpose and changes

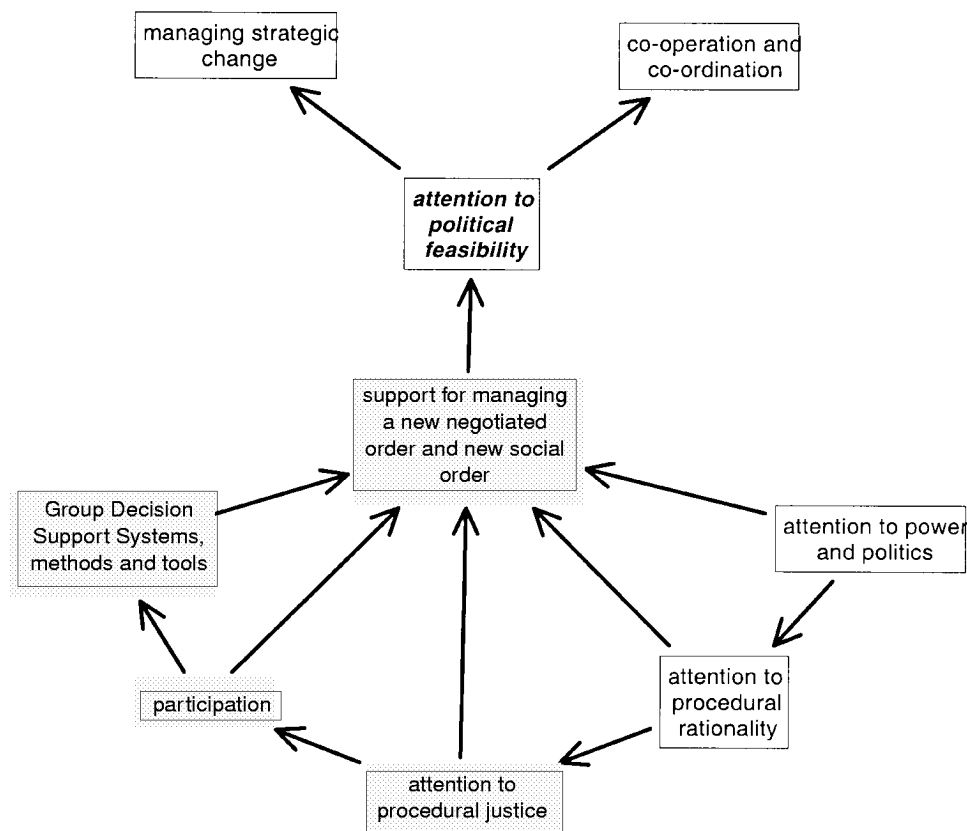


Figure 1. The context of political feasibility (adapted from Eden and Ackermann 1998).

the means for achieving the purpose. This is always contested. Every person has their own ideas about what the organization is for and how it should get there. This means that any change will have to be determined through negotiation – the creation of a new negotiated order (TR4). This new negotiated order is determined independent of who is to deliver and maintain the new order. It is instead based upon principles of “hard systems” where optimization is sought for problems such as logistics, production, marketing, business processes, and finance. It is possible for one person to determine the nature of the best new order by analysis of the “facts”. But, in organizations, these facts are disputed, and so negotiation amongst powerful players is required to establish which facts are to be used in the analysis. This social negotiation aims to create a new order, new ways of doing things, determined by the needs of the organization as differently perceived by each player. Thus, this first aspect – creating a new “negotiated order”, recognizes that resolution of the tensions between what each of the powerful actors in the organization wants for the organization demands a social process that explores the different perspectives and negotiates an acceptable way forward. It is clear that a GDSS can play this role to great effect.

However, the second aspect of the notion of organizations as a negotiated order attends to the extent to which organizations and groups exist within an established order of social relationships. Here people need to be able to work together acknowledging friendships, loyalties, dependencies, and most importantly established scripts and social roles (Mangham and Overington 1987). There are major forces for maintaining the status quo of the current social relationships, and so any changes to social relationships need to be negotiated. The outcome of this process may be labelled the new “*social order*”. Negotiated order and social order are two sides of the same coin, each emphasising a different aspect of organizations as a negotiated enterprises, with strategic management aiming to create a new negotiated order and new social order. Once again a GDSS offers itself as an effective, and designed, method for helping this to be achieved.

The first aspect acknowledges that a social procedure of one sort or another is always used to make decisions. Decisions can rarely, if ever, be enacted without recourse to social negotiation and so a consideration of power and politics. The second acknowledges that any organizational change has an impact on negotiated social relationships. It is the second of these – the power of social relationships - that means people have difficulty saying what they think ought to be done for the organization because to do so might have undesirable consequences for currently comfortable social relationships and existing informal trading agreements. A networked and computer based GDSS can use anonymity to facilitate the surfacing of uncomfortable points of view and avoiding the worst outcomes of the “group-think” phenomena (Janis 1972).

At the very least managers realise that future negotiations depend upon the conduct of current negotiations. The role of relationship building was a significant addition to the work of Roger Fisher (Fisher and Ury 1982) on “getting to yes” in negotiations by arguing for “getting together: building a relationship that gets to yes” (Fisher and Brown 1988). In organizations “the bulk of our activity consists in ‘relating’ itself . . . the most important aspect of activities, the ongoing maintenance of our ongoing activities and their ongoing satisfactions” (Vickers 1983, p. 33). Janis and Mann (1977) emphasise that the stress arising from concerns about personal and social losses that might be incurred following diffi-

cult decisions can lead to several dysfunctional coping patterns. Of relevance to reducing the probability of creating an effective new negotiated order or new social order are: (i) unconflicted adherence – where the complacent continuation of the current strategy is the easiest way out, (ii) unconflicted change – where there is uncritical adoption of a new strategy, (iii) defensive avoidance – where a group finds ways of ignoring conflict, and (iv) hyper-vigilance – panic. Surfacing conflict in a manner that does not damage social relationships but forces constructive debate amongst managers (TR4) and subsequent negotiation without the need for “face-saving” is crucial for the successful ownership of strategy and avoidance of “group-think”. GDSS’s have a well-established record in knowledge surfacing and in opening-up issues faced by managers (TR2).

One of the assumptions that has driven the design of many group decision support systems, similar to that which we employ, is that the free expression of ideas, and egalitarian participation is a desirable outcome of group work (Janis and Mann 1977). Underlying this assumption are two notions. The first advances that fundamental to decision making is the exchange of information (DeSanctis and Gallupe 1987). This aligns with statements above about sharing expertise and making good use of multiple perspectives, and is reinforced by research that suggests that “communication in a successful group is open and full”. The second notion suggests that egalitarianism is, in itself, to be valued at some stages during strategy making – a dimension to be seen alongside the pragmatic requirement of both psychological and social manipulation to achieve ‘buy-in’ that we considered above.

As each of the two aspects of negotiated order is an opposite side of the same coin, neither can be ignored. Instead they need to be carefully balanced as strategic change is designed and delivered. The strategy making activity must be designed to permit both aspects, so that a new negotiated order and a new social order can arise hand in hand. Acknowledging both aspects is contrary to the common view that problem solving in organizations is solely about the generation and evaluation of alternatives and choice from amongst them. In addition, it suggests that decision *making* is influenced by the way in which issues are presented, the identification of their significance, their exploration as the group constructs a shared understanding of them, and the point at which a negotiated settlement is likely – a fundamental role for a GDSS.

### **Balancing analysis with social negotiation**

Issues of *balance* are critical to effective strategy making. If there is too much that is influenced by the established social order then there is a risk of the “realities” of the problem situation being ignored and ‘group-think’ occurring. The danger is that the group negotiates a course of action that nobody wants and nobody knew the others didn’t want it. Jerry Harvey neatly describes an example of this phenomenon (known as the “Abilene Paradox” (Harvey 1988)) where a group finish up taking a bus ride to the town of Abilene, a ride that none of the group wanted. However, if the strategy making process is only dominated by the rhetoric of what is good for the organization (without participants considering their own role in the outcomes) then social relationships may become ambiguous. Participants then turn their attention fully to resolving this ambiguity in their social affairs. Consequently

there is a tendency for the organization to settle back to the old negotiated order as the easiest resolution of ambiguity – the old ways of doing things and the old social relationships. Here agreements are subsequently sabotaged because they are not politically feasible. Some attempts to use Decision Analytic single user GDSS's as strategic option evaluation devices that will lead to a group making strategic decisions solely from this analysis have been disastrous. Members of the group have been unable to explore their discomfort with the rationality of either process or analysis and so have been forced to resort to sabotage outside the group session.

At its worst, we can see this happening when a group of managers get together to consider a strategic problem and their deliberations are governed solely by the logic of a unitary perspective analytical model such as a decision tree or multiple criteria decision model. The logic of the model is powerful, the analysis of the facts is indisputable, apparent agreement to a course of action is reached, and yet after the managers leave the room the agreement is sabotaged. The analytical procedure ignored: (i) multiple perspectives on the facts, partly because the modelling technique only allowed for one view of the facts (albeit, sometimes with a recognition of uncertainty which can be taken as a range of views); (ii) the extent to which “disagreeable” facts could not emerge because of its impact on social relationships, and so some of the group knew the “answer” was wrong but could not negotiate because the analytical procedures did not allow enough equivocality for balancing a process of discovering facts along with a gradual shifting of social relationships. It also ignored (iii) the need for the changes in social relationships, demanded by any new ways of doing things, to be negotiated with care. This is not to argue that analysis is unhelpful, on the contrary it is to argue that it must sit within the realities of a social organization where facts are disputed; facts are determined as much by power as by knowledge, wisdom and experience; and social relationships influence the practicalities of agreements being implemented. However, notably many GDSS's involve a group playing with language statements (notable Group Systems and Group Explorer) where the statements are always imprecise enough – enough equivocality of group definition – to allow for negotiation to occur because there is less likelihood of direct confrontation related to “hard facts”.

### **Procedural justice**

The way of negotiating a new social order will, in part, depend upon designing “procedural justice” (Thibaut and Walker 1975) into the strategy making process. This is particularly important when participation in strategy making must extend beyond the top management team (TR6) and involve actively and seriously several hundred other members of staff (for example see Eden and Ackermann 1998, Part 2 – Northern Ireland Prison Service and Scottish Natural Heritage vignettes). While there is an important relationship between procedural justice and the quality of the new negotiated order, ensuring procedural justice is an important consideration in its own right. For example, a particular decision may be unfavourable and yet a team member will support it because the process of arriving at it was procedurally just. Procedural justice is concerned with attending to the fact that people are concerned about the fairness of the procedures used to arrive at a deci-

sion as well as the decision itself (Folger and Konovsky 1989; McFarlin and Sweeney 1992). It relates to an involvement in issue formulation, being listened to, and having a voice. However, it must be noted that being listened to, and involved in, are distinguished from having influence over outcomes. We are as much concerned by *perceptions of influence* as any reality of influence. As long as we expect to be able to design processes to address the perception of influence *and* involvement itself, then we expect to see some relationship between actual influence and the participant's perception of influence.

Recent research conducted with existing management teams suggests that "leaders of strategic decision making teams can use procedures that improve the chances of gaining cooperation and commitment to decisions without sacrificing the quality of decisions in the process . . . when team leaders showed strong consideration of team members' input, team members saw the process as fairer, and consequently had greater emotional commitment to the decision, greater attachment to the team, and greater trust in the leader" (Korsgaard et al. 1995, p. 76). More interesting, from our point of view, they found a link suggesting that the extent to which leaders considered the input of team members influenced positively the feelings of attachment and trust over time (which support earlier studies not undertaken with "real" teams (Leung and Li 1990; Lind et al. 1990)). For strategy making, long term effects are particularly important if change is to be implemented.

Alongside this, Kim and Mauborgne (1995) explored the role of procedural justice in strategy formulation and implementation in global organizations. Their concern was specifically located in the problems of developing strategy for many strategic units in many countries (Kim and Mauborgne 1991, 1993). However, there are some interesting aspects of the work that we believe apply equally to the methodology we are presenting in this paper. We believe that the circumstances of the global organization may replicate, on a larger scale, similar organizational relationships to those we meet in many other kinds of organization and so we can learn from the results of the study. The study sought to identify a small number of the characteristics of procedural justice which 63 "subsidiary presidents" regarded as significant when evaluating the annual strategic planning processes for being fair. Open-ended questionnaires were used to establish their views and the results generated 63 statements which were then sorted, clustered, and subsequently checked with the participants. Their results suggested five dimensions that we list below in a form which we take to be relevant to most organizations:

- The extent to which a senior manager or top management team or Chief executive gives middle managers "an opportunity to voice their distinct perceptions, knowledge, and ideas but likewise are required to hear the opposite party out". Kim and Mauborgne call this "bilateral communication".
- The ability to refute and challenge the strategic views of the top management team; "ability to refute".
- The extent of seeking to determine a degree of local familiarity, on the part of senior management – examining issues from the coal face; "local familiarity".
- The extent to which middle managers "are regularly provided with a full account for the final decisions" of the top management team, for example, what steps were taken, why priorities were made; "provision of account".



- The extent to which the top management team does not discriminate but applies consistent decision making procedures across different parts of the organization; “consistent decision making procedures”.

Kim and Mauborgne used these dimensions of procedural justice as the basis for exploring strategy implementation. Their findings support the view that procedural justice (as defined by these characteristics) does affect the likelihood of implementation of strategy across subsidiaries. If we see any medium to large organization as comprising competing “subsidiaries” (departments and coalitions (Raimond and Eden 1990)) then we may also expect these five dimensions of procedural justice to be important elements in the design of a strategy making methodology that uses a GDSS as a central tool.

It is certainly reasonable to presume that the value of a person’s contribution to group work is not related to their social skills, or power, and thus a redistribution of “air-time” with greater participation is likely to increase the quality of decision making. There is also a view that anonymity can help counter the destructive nature of role casting, where a person’s previous performance in meetings provides a negative attribution to their ideas (Connolly et al. 1990). An efficient exchange of views is extremely difficult if each participant “plays to the gallery”. Anonymity can also contribute towards a more open and honest exchange of views, cut down conformity, and reduce the impact of dominant members (Jessup and Tansik 1991; Nunamaker et al. 1991). All of these contributions play an important part in diminishing the negative effects of the need to maintain the current social order.

Nonetheless, the individual characteristics of managers are taken to have the most impact on problem formulation, where the credibility of the person making the formulation has the most influence on determining whether it will be accepted or not. This is particularly important as the strategic issue surfacing and formulation episodes are one of the most significant determinants of strategic intent. The need to recognise both the advantages of anonymity on some occasions and the advantages of identified contributions on other occasions is an important element of the practice of strategy making. In contrast to many of the designs incorporated into some GDSS’s we seek to incorporate both aspects into strategy making (Ackermann and Eden 1997). By moving between modes participants and facilitator are able to manage better the balance between negotiating new ways of delivering the aspirations of the organization and a new social order.

Effective group work is, therefore, crucial to strategy making. Ineffective group work can be the result of the strategy making process *placing too much emphasis on building emotional commitment without designing processes that reinforce high quality rationality* (Collins and Guetzkow 1964). The relationship between these two aspects is complete and fundamental. *Without emotional commitment to delivering agreements the rationality of the reasoning becomes irrelevant and the balance has swung fully too far to cognitive commitment only.* The value of high quality thinking is close to zero without a willingness of managers to cooperate in their implementation (Floyd and Wooldridge 1992; Wooldridge and Floyd 1990). Indeed there is a great danger of *deliberate sabotage of highly rational decisions that have not taken any account of the social needs of the group* (Guth and MacMillan 1986). Choices made must recognise that *coordinated and cooperative effort*

*is required to deliver strategy.* Strategy is not delivered by a system but by real people with social futures together. The social relationships of members of an organization are mostly expressed through the social order that exists in their ways of working together, their patterns of interaction, their dependencies. *Strategy development that is effective will, perforce, knock these relationships.* Strategies that do so are at risk, regardless of their reasoned goodness, because sometimes *team members will sabotage them in subtle ways in order to retain social equilibrium.* And in delivering strategy *a lack of commitment to one part of the strategy will always have repercussions for other parts* (Eisenhardt 1989). What this implies for the use of GDSS's is that they must be seen as part of a total strategy making process, and evaluated as such. To see them as isolated interventions that can be evaluated on the basis of the intervention alone is to ignore their role in a much more complex process.

### **GDSS's and the strategy making process**

The *process* of strategy making creates important indirect, or invisible, outcomes. These are as important as the more obvious outcome – the published and publicized strategy. Less visible outcomes are important because they increase the chance of delivering strategic change and also promote team building. To support the process, and to maximise the group's effectiveness, computer based systems have been developed to support group working – these are known as “group decision support systems” (or GDSS's). Other terms are sometimes used to signify similar systems which are designed to use computers, often operating as a local network to give each participant input access to a large public screen, for example “group support systems” (GSS's) and “meeting support systems” (MSS's). We see GDSS's as systems for supporting the power brokers in the process of reaching agreements, and see GSS's as systems for supporting groups in surfacing multiple perspectives, individual wisdom, and collecting a range of relevant data from a group in a highly productive and participative fashion (Ackermann and Eden 1997).

The requirements of the strategy making process introduced above are possible outcomes from the use of a GDSS; indeed we have argued that a GDSS seems to be well positioned to be a primary support tool in strategy making. But is it likely to make a more powerful contribution than other methods or tools, particularly those of good facilitation or leadership from a good manager? We have discussed elsewhere the different demands that alternative stakeholders in the use of a GDSS may have (Eden and Ackermann 1996). The answer to the question just set is, therefore, not simple – facilitators/consultants, clients, other members of the “group” session, GDSS designers, and so on each have very different criteria they would use. Most significantly there can be a significant difference between the demands of client (CEO or Managing Director) and other group members. For all the reasons discussed above, it is rare that there are no losers in a serious strategy making exercise – it is our experience that when strategy making delivers strategic change then there are usually casualties – these participants are hardly likely to regard the role of the GDSS as helpful! Nevertheless, what we do know is that the efficiency of strategy making – the value added per hour – that can be achieved by the introduction of a GDSS will be a crucial cri-

terion. Unless the GDSS engages senior managers continuously it will not be used. It is no use explaining that the rewards will come in the fullness of time. . . .

So, the first half of this paper has set out, from the perspective of strategic management, and the behaviour of groups and individuals within organizations, some of the demands that must be made of a GDSS for helping an organization determine strategy. Returning to the “rules” suggested by Taylor above, there is a need for involvement of the power brokers – “the operating managers”, there is a need to surface real issues, there is a need to implement, there is a need to negotiate with powerful stakeholders both within and out-with the organization, and there is a need to consider uncertainty and turbulence.

### **Using “Group Explorer” – a particular GDSS for group decision and negotiation in strategy making**

In this second half of the paper we discuss how one GDSS – Group Explorer – pays attention to developing both psychological and emotional commitment to the strategy making process as well as supporting the negotiation and decision making requirements. We do not wish to imply that the manner in which Group Explorer works, as a computer networked GDSS, is the only path to successful use of GDSS’s for strategy making. On the contrary we wish to use this specific GDSS to demonstrate, by example, that many other GDSS’s meet these needs and that there is a powerful role for GDSSs in strategy making.

The considerations presented below stem from over 15 years work where the authors have been involved in strategy making interventions with organizations (private and public, small and large). Vignettes discussing some of these interventions have been described elsewhere by Eden and Ackermann (part 2, 1998), and from these the role the Group Explorer GDSS can play is evident. Whilst the focus of this paper is predominantly on a computer networked multi-user GDSS, focussing on direct entry is not the only means of providing group decision support. There are a variety of different modes of GDSS’s available for helping TMT and their operational managers gain commitment to the strategic direction – for example Manual Group Support, Single User Group Support and Multi-Access Group Support (for more details see Ackermann and Eden 1999) and it is important to apply the best mode for the group according to the particular stage of strategy making (TR1) (Ackermann and Eden 1997; Eden and Ackermann 1996).

Along with the different modes of using a GDSS, these systems can be used in many ways. When developing strategy there can be seen to be five primary stages: (i) issue surfacing; (ii) developing strategic intent (encompassing articulating the aspirations, competencies and strategies of the organization), (iii) stakeholder analysis and management, (iv) alternative futures exploration and finally (v) performance review. We will now explore each of these in detail illustrating how the GDSS has helped.

#### *Strategic issue surfacing (TR2)*

As recognised earlier, capturing alternative perspectives (without penalty) not only allows participants to begin to explore possible strategic directions but helps ensure that both new

social and new negotiated order can take place. Using Group Explorer's "gather" module members are able to directly contribute their ideas to the model being developed. As such this allows contributions to be made anonymously thus allowing for divergence, and for TMT members to raise apparently contentious issues, challenge the views of one another, and as a result generate a wider range of issues or options than would otherwise have been possible. From this, the resultant material can be subsequently explored and made sense of helping the group to move towards a new negotiated order as views are examined as a result of their merit rather than their proposer.

In addition the gather mode allows participants to simultaneously contribute and therefore the rapidity of developing the material helps in increasing the productivity of the group and therefore providing immediate value to senior managers. A group of 8 TMT members can easily generate 60+ contributions within a 15-minute period – far more (and more equally distributed) than could be the case using many of the traditional methods of generation. 'Piggy Backing' (Osborn 1957; Pinsonneault et al. 1999) of ideas is openly encouraged as participants can see the views of others on a public screen (alongside theirs) and can also see theirs on their private screen. This facility to view the central screen (and therefore the views of others) can be "turned off" when a more diverse view is sought as it seeks to manage bounded vision (Schwenk 1984). Shaw (2000) provides more in depth reflection on this particular feature.

The gather mode not only enables participants to contribute statements but also allows them to contribute causal relationship thus demonstrating chains of argument – Group Explorer uses cause mapping (Eden and Ackermann 1998) as the format for structuring the surfaced material. The maps allow the contributions to be linked together with different chains of argumentation being illustrated. Through this capturing and validating of relationships participants are able to begin to appreciate the ramifications/consequences of particular options – thus further extending the model's ability to act as a negotiative device (Eden 1992, 1995). This increases participants understanding of the organization's operations and therefore the possible strategic directions being considered. Experience of working with groups has shown that participants, once familiar with the linking process, are able to use the system to transmit not only their contributions but also relationships – thus helping to rapidly identify the different consequences and options available to particular directions.

As part of the mapping technique's coding practice, wording the contributions in an action orientation is encouraged. This helps in not only clarifying the meaning behind issues (through the added richness derived from providing both action and actor) but also from considering the various options open to promote or resolve the issues.

Not surprisingly it is not unusual to see surfaced a larger number of issues than that which could be undertaken by the organization (due to finite resources etc.) and so some prioritisation process becomes necessary. Group Explorer through the preferencing module allows a rough indication to be elicited as participants are given the opportunity to cast preferences and then reflect on the outcomes. The process is a simple one - each participant being given a certain number of "electronic spots" (resources) that can be allocated to the various options being examined (see Figure 2). Participants are able to allocate all of their resources on one particular item if that appears to be particularly important or spread them across a range. Here again the anonymity (and hidden results) helps promote a less constrained or

influenced view to emerge with the resulting picture acting as a powerful dialectic device. Where there are significantly contrasting views some indication as to the rationale (for the different positions) can be obtained either through dialogue or if necessary through the gather module. From this further understanding and negotiation becomes possible. Often the “electronic spots” – resources – available to each participant include a second colour of spots (typically RED) that may be used anonymously to “veto” an option. In this way political feasibility may be tested - participants are asked to indicate whether they would, in practice, sabotage progress on delivering some part of the strategy (TR3).

Mixing between Group Explorer’s direct entry mode and a single user mode (driven by the facilitator on behalf of the group – see Ackermann and Eden 1999) ensures that contributions can be surfaced and then examined in detail thus moving from divergence to convergence. As the impacts of particular actions are understood (as they can be seen with all their associated context) then debate can unfold. Through this the model being generated can be seen as a negotiative device – presenting different alternatives with their context and allowing participants to develop together a way forward.

The system also allows for groups of middle or line managers to be involved through the system’s ability to enhance productivity and achieve results in a fairly ‘quick and dirty’ manner. When working with these groups (or group) the opportunity for other managers to make (or inform) strategy is addressed whilst also clearly setting out that the process is

**JourneyMaker Console**

2 product line development

- 4 buy in compatible technology
- 15 increase product profile
- 18 contract out some design work
- 23 link up with competitors
- 44 push into undeveloped markets
- 50 watch competition

◇ To vote, type the concept, '+', how many votes to cast, and the colour initial.  
For example, "4 + 1 c" will vote one (C)yan for concept 4

Votes available:

(C)yan   (R)ed

2 1

Concept 50, add 2 votes on (C)yan

Figure 2. An example of a preferencing screen.

to influence direction rather than make decisions (Ackermann and Eden 1997). The top management team (TMT) thus are able to gain the views of those further down the organization without feeling their managerial prerogative has been threatened (TR6).

*Developing a strategic intent – working with aspirations and patterns of distinctive competencies (TR1)*

Often following on from the above stage (but capable of being self sufficient) identifying the organization's goals and its distinctive competencies can be a powerful and productive use of a GDSS. TMT participants using the gather mode can surface the values and aspirations (goals) they believe to be important and therefore drive the organization's strategic direction. These can then be structured as the links between them are surfaced and captured and the resulting picture explored with new material being captured and checks being made to previously surfaced material (if the strategic issue surfacing exercise has been undertaken).

As a further validation test participants can subsequently be asked to surface (often again using the gather mode) those competencies that they see as distinctive to the organization. These can be individual capabilities that set the organization apart from its competitors or portfolios of competencies that when taken together provide distinctiveness. The competencies can be skill based, culture based, difficult to emulate, costly and time consuming to develop and sometimes not well understood by the organization in question – it just knows it does something quite unique. Debate often surfaces as to whether a competency is distinctive or not - resulting in further consideration and negotiation and new material being surfaced.

However, it is Group Explorer's ability to not only capture the candidate competencies that support the strategic intervention but also to begin to see their interconnections that provides benefit. As noted above, distinctive competencies may come from a particular pattern – a portfolio – of competencies and it is the patterning that is unique. This pattern may even take the form of a feedback loop where one competency supports another which supports another which in turn reinforces the original competency. Here is important to understand the systemicity – as losing one competency will impact significantly on those related to it.

Relationships as noted above are captured (either using the single or direct entry mode) and further expanded as the competency picture is subsequently examined alongside the goal map – checking to ensure that it supports the aspirations earlier drafted. This linking of aspirations and competencies provides the business model or livelihood scheme (Eden and Ackermann 2000a) – essentially providing a clear indication of the organization's right to sustain a continuing livelihood, or make a continuing surplus/profit. Where it becomes evident that aspirations are not supported (i.e. linked) by competencies then either the aspiration/goal map must be amended to take this into account or new competencies must be identified. These new competencies often give rise to potential strategies. Alternatively, where competencies are identified that do not currently support the aspirations then the question must be asked as to whether they are in fact still relevant and whether the energy expended to support them is appropriate.

We have found that carrying out this exercise with operational managers as well can provide further benefits. Firstly as the outcomes often sharply contrast with the views of TMT members – line managers are dealing with the everyday workings of the organization and therefore often have a considerably different view of what the organization's strengths are. Secondly, this process further involves them in the development of the strategy thus gaining further commitment to the outcomes. The new insights gained from the operational managers can then be explored alongside those surfaced earlier and decisions made accordingly.

*Considering alternative futures – an uncertain environment (TR5)*

We regard the process of positioning an organization in relation to its environment as one of considerable importance when strategy making. Testing out the outcomes from either of the phases mentioned above (surfacing strategic issues or developing a business model/livelihood scheme) against different futures can help in increasing the robustness of the proposed strategic direction as well as surfacing new options.

In addition, scenario development (or alternative future exploration) when done with managers can provide considerable advantages in terms of (a) helping managers (whether they are TMT or operational/line managers) begin, through the process of developing the scenarios, to learn more about strategic thinking and (b) ensure that the futures are appropriate for the organization and understood and owned by all. This is not to say that the scenario methods espoused by others (e.g., Schwartz 1991; Van der Heijden 1996; Wack 1987, 1985) are not effective and informative methods – there are many cases that illustrate their worth – but rather in some circumstances the amount of time TMT members are willing to spend on scenario development precludes using extensive methods. Moreover, involving either TMT or line managers in the process – active participation – promotes discussion. From this it is possible to increase the awareness – change the mental models – of participants increasing their ability to think strategically (reducing the blinkers) as well as helping with developing organizational learning.

GDSSs such as Group Explorer can provide valuable support when aiming for active participation (Eden and Ackermann 2000b). Firstly, using the gather (or capturing) mode it is possible to surface triggers (events or “flip flops” that cause a chain of events to unfold) tapping the knowledge and experience of those involved. Through the anonymity different perspectives are able to surface transcending often beyond the traditional PEST categories (TR1). Once the surfacing process has wound down, either prompting participants to enter links (how might the events impact upon one another) directly or through the facilitator's aid allows a picture to be built up illustrating the dynamics that can occur. Events can be seen impacting one another often surfacing counter intuitive results. For example see Figure 3 – here an apparently positive trigger results in various outcomes that are anything but positive. This ability to capture the causality extends the GDSS's ability to allow genuinely alternative perspectives to surface and adds richness to the resultant futures. In addition, the process of developing the futures has been found to highlight possible strategies and action further validating the use.

As with the material surfaced and reviewed during any of the other stages – the model also provides a powerful organizational memory – one that can be returned to regularly for update and reflection. This may be useful when monitoring the progress of the strategy or reviewing the aspiration/goal system.

Finally, in a manner similar to the strategic issues work, GDSSs allow more to be involved in the process of developing alternative futures thus enabling both those within and outwith the organization to be involved. We have already discussed how involving line managers can enhance their commitment to the outcomes and will extend their mental models but this process can also be applied with those outside of the organization. When generating scenarios, frequently stakeholders that are powerful in terms of supporting or sabotaging a strategy surface – stakeholders the organization has no control over – stakeholders that might in fact not be interested in the organization. Through involving them through a productive, effective and insightful process not only are alternative perspectives gathered but those involved are given the chance to appreciate the organization and its environment (and concomitant difficulties) and therefore be more supportive to their endeavours.

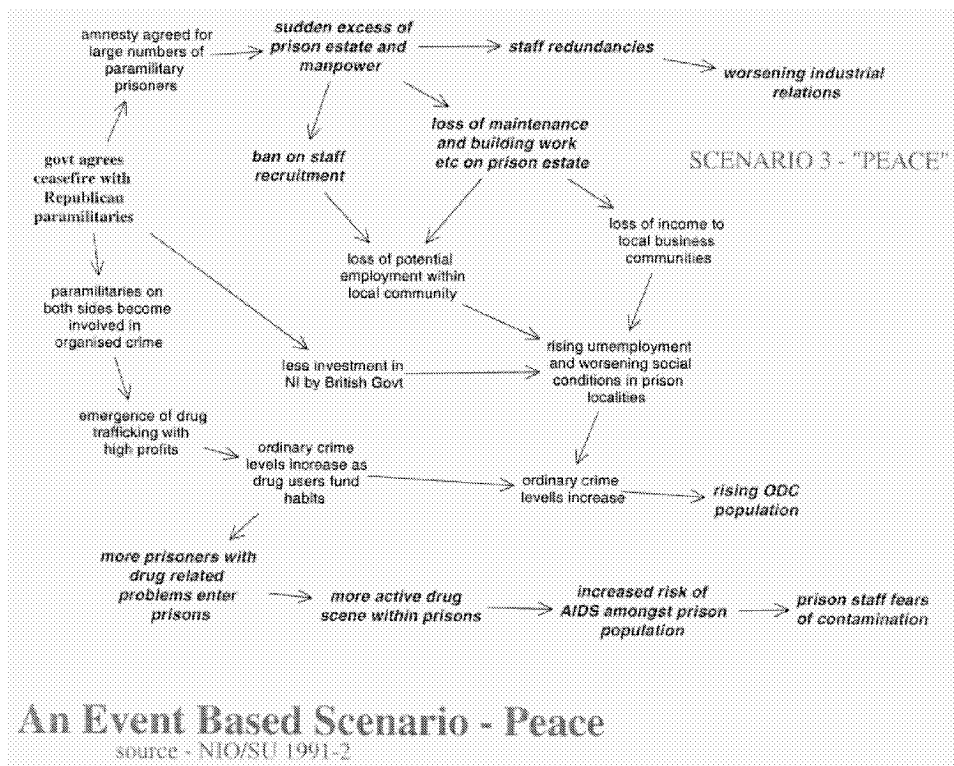


Figure 3. Peace and reconciliation scenario.



*Stakeholder analysis and management (TR8)*

The above section dealing with the development of possible alternative futures gives some indication as to the usefulness of considering stakeholders. However, there are other reasons for undertaking some stakeholder analysis and management. Firstly it will help the organization become aware of those stakeholders that may support or sabotage the strategic intent. Those appearing to have the ability to have a significant impact on the future of the organization can then be assessed and means of managing them designed. Secondly it might give rise to the surfacing of new options as possible alliances and courses of action become evident. The process therefore helps make more robust the strategic direction being proposed as well as further attuning the mind set of those involved to the subtleties and nuances of strategy.

GDSS's can provide useful support to those working in this area. Firstly through supporting the rapid generation of stakeholders (rather than using a predefined set (TR1) such as that provided by Freeman 1984) and subsequently through exploring their basis of power and interest. We have found that plotting stakeholders on a Power/Interest grid not only provides the impetus and legitimacy for discussing these stakeholders but also a wealth of information that can add to the organizational memory (using electronic memo cards – similar to post-its™).

Secondly through focussing on those stakeholders that are both interested and powerful, and subsequently exploring the bases of power and interest – options for managing the stakeholders can be surfaced and discussed. From this it is possible to able to explore options for managing them.

Finally, using the GDSS allows formal and informal relationships to be captured and displayed – providing valuable clues as to those stakeholders that have a considerable influence over other stakeholders, or who act as conduits for information. All of these processes (and those for scenario development) are transparent to participants and can be quickly carried out thus providing immediate benefit to those involved (an important aspect as paying attention to stakeholder management is often not considered to be an appropriate use of organizational time until after the analysis has been carried out).

*Developing a strategy delivery support system and building in performance review (TR4)*

Gaining agreement to the strategic actions planned and their associated forms of measurement also is an area where GDSS's can be powerful support mechanisms. It can be argued that involving the line managers directly in the agreement of the strategic actions (and therefore also getting them to help in allocating responsibility) further helps with ensuring commitment.

The first stage may be seen as getting agreement to the strategies. This process is usually carried out by the TMT – acknowledging the need to attend to gaining ownership and commitment. As noted above, GDSS's and direct entry in particular, usually result in far more candidate strategies being surfaced than can be accommodated by the resources of

the organization. Consequently some form of reduction/prioritisation process becomes necessary – thus the use of the preferencing mode. TMT members can, through the system, highlight the candidate strategies (strategic issues) by allocating a number of their electronic spots (resources) to those they see as being the most important. Again where there are clear differences in opinion, this can be identified and discussed (either publicly or anonymously) further ensuring that the outcomes are supported by new social and negotiated order.

An alternative mechanism is to examine how much leverage each candidate strategy has towards the realisation of the goals. Using the rating mode in Group Explorer, participants can decide which of the candidates best support the goal in question (positioned at the top end of a continuum) and which least supports the goal (– the bottom end of the continuum) thus giving anchor points. The remaining strategic issues can then be positioned accordingly (see Figure 4). As with the preferencing mode – the results can be publicly displayed and where there is a wide range of views debate can take place thus helping with the negotiation process. This exercise is repeated for each of the goals (the results of each being captured automatically). Overall comparisons can then be made.

The next stage is getting agreement for strategic actions supporting the strategies. This too can be assisted through gathering and preferencing modes. In this instance however, it is often worthwhile involving line/operational managers (or working with them entirely)

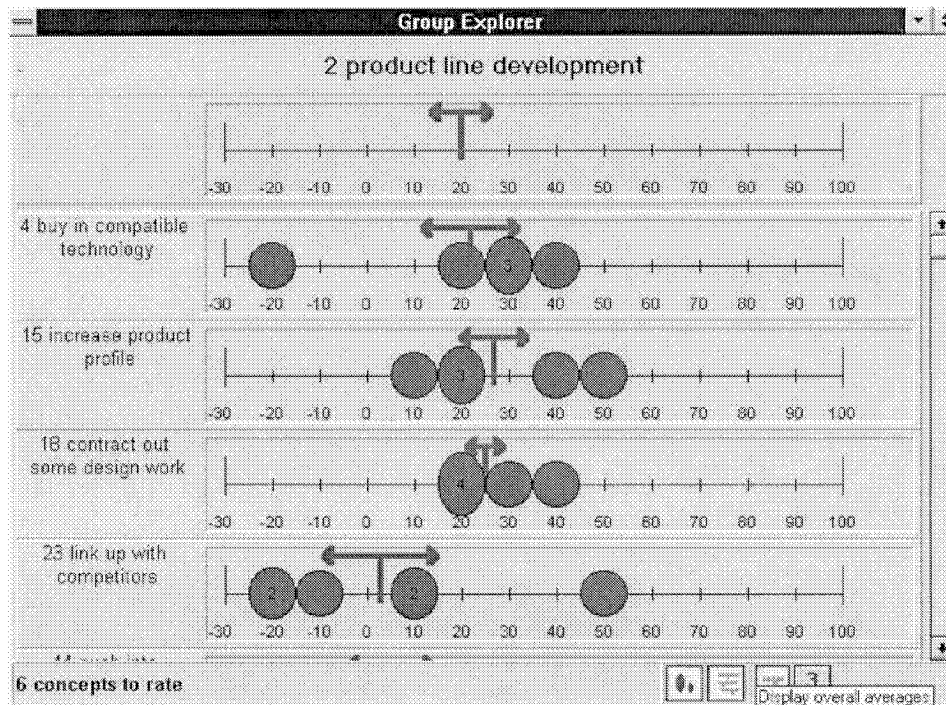


Figure 4. An example of the rating screen.

as they are usually the ones responsible for implementing the actions and therefore their commitment is critical. The process may commence with any previously captured material that supports the particular strategy being considered being displayed. The gather mode can then be used to elicit any further actions with participants being strongly encouraged to not only enter the actions but also their associated relationships - thus being clear as to their purpose. Once the participants are satisfied that all the possible actions have been surfaced, then it is worth moving to the preferencing mode. Providing participants with two colours of electronic resources (one colour representing likelihood/probability and the second leverage/impact) allows them to distinguish between the different criteria and to identify those that are both likely and will have greatest leverage. The final stage is then to allocate responsibility of the actions to particular members (usually those at the workshop) along with agreeing time-scales for their completion.

This process might require a series of short workshops – with each workshop focussing on one or two strategies (for example the work with Scottish Natural Heritage used eight workshops – see Eden and Ackermann 1998, p. 206). Consequently a final meeting with the TMT can be undertaken to review the actions, check resource implications and begin to identify the means of evaluating progress.

When considering reviewing progress, measuring performance at both a macro and micro level helps the organization assess where they are, and see what they are doing well and where there is potential for further effort. Performance Indicators for each strategy (identified using the gather mode) can then be assessed (using the rating mode). As the actions can also be monitored crosschecks between progress on the actions and progress on the strategies can be carried out. Moreover each participant/organizational member is able to see how their particular contribution affects the strategies and thus the goals thus further gaining emotional commitment.

## Conclusions

From the above review, using a GDSS enables a wider range of participants to be involved, and allows a wider range of alternatives to be surfaced (along with their context). From the former – the range or extent of involvement – comes emotional and cognitive commitment. Being involved in the process acts as a powerful incentive for supporting outcomes (TR4). The wider range of material surfaced provides a richer platform from which to build strategy. This then supports substantive rationality but within the context of procedural rationality (TR3). The GDSS's ability to provide participants with sufficient time to reflect and consider rather than react immediately – aids psychological negotiation and so commitment becomes possible through changed thinking (TR7). Participants can be persuaded (without loss of face) towards a particular direction.

The strategy making process discussed here – assisted by a GDSS – contributes to ensuring that the strategy developed is unique and appropriate to the organization (TR1). It has ensured through attending to strategic issue surfacing that planning should focus on strategic issues (TR2). Through being able to quickly (and in some cases crudely) explore various perspectives of the future situation facing the organization (stakeholders analysis

and management, and alternative futures exploration) the illusion of certainty is reduced (TR5). TR4 and TR6 are attended to through the ability of GDSS's to easily and effectively involve a wider selection of staff throughout the organization.

Obviously the process of developing strategy goes further than simply adhering to a rule set, we used the Taylor commentary simply as a framework for consideration of the use of GDSS's in strategy making. We have, in the first part of this paper, paid particular attention to the need to attend to the social processes of making strategy – to integrate the different elements of strategy making and to provide a model that encourages negotiation – these requirements are particularly well supported (and in some cases made possible) by the incorporation of a GDSS.

The characteristics of strategy making as they relate to the current and potential contributions of GDSS's suggest a much more significant use for a wide range of GDSS (in addition to the use Group Explorer considered here) than reported in this paper. In particular the use of interactive system dynamics modelling as a GDSS already has a significant record of success – see for example Vennix (1996) and Andersen et al. (2000).

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