Tomorrow is Another Day: Information Systems Governance

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TOMORROW IS ANOTHER DAY: INFORMATION SYSTEMS GOVERNANCE

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Abstract

In many organizations, the Chief Information Officer is considered to preside over a separate function, providing a service to the business. Discussions about governance are confined to properties of this service, e.g. through a service level agreement. Members of the CIO's staff are often seen as technical experts possessing esoteric skills desired but not understood by other staff. Many researchers have observed a need for businesses to avoid such fragmentation to reap the full benefits of investment in ICT's. However, this research is itself often fragmented – focusing sometimes on software, sometimes on architectures. This paper argues that IS governance should form an integral part of strategic business management. We advocate a shift of perspective in management of IS, from leadership to facilitation. People at all levels require empowerment and support to develop their own IS 'capability'; to make the best use of available technologies and information in context. There is evidence to show that input from a wider community within organizations can lead to an improved realization of value from information technology. The paper will discuss methods which can provide appropriate support for individuals to achieve this.

Keywords: IS governance; IS strategy; leadership; collaborative management.

1 INTRODUCTION

Like Scarlett O'Hara in the film 'Gone with the Wind' (Howard, 1939), every business organization is faced with uncertainties and dilemmas – "*Where shall we go*? *What shall we do*?" It is a perenniel challenge to find the right vision, to harness the capabilities and assets residing within the organization, to acquire the necessary resources and to determine what products to offer, in what markets and by what means. Approaches to strategic management are the response to this challenge, attempting to steer the organization towards success (or avoidance of failure). At the same time, those concerned with developing a company's vision for the future are aware that they do not have carte blanche to pursue it. There are forces of constraint operating on behalf of stakeholders who variously fund the organization, contribute inputs to its activities, are in receipt of its offerings or form the societal backdrop within which it operates. These stakeholders require management to account for the policies they follow, the risks attached to those policies and the consequences that may ensue. Thus, it is possible to perceive a tension between the needs of strategy formation on one hand, and of governance on the other. It is this somewhat uneasy relationship that this paper sets out to explore, with particular reference to the information systems aspect of organizations. In order to pursue these issues, we will discuss alternative paradigms within which roles of management can be perceived, and we will suggest how alternative views of emergence in organizational systems can impact upon both strategy formation and governance. In the past, it was often suggested that a rational planning approach could be taken to strategy, i.e. someone (usually senior managers) would attempt to identify the company's 'mission' which could then be translated into goals, objectives and targets at increasing levels of concrete detail (see e.g. Johnson and Scholes, 1993). Such an approach, which Mintzberg (1994) refers to as 'mechanistic', has been subject to much criticism as ignoring, for example, any political dimension or need for negotiation among the diverse values, ambitions and power bases of different stakeholders. He further suggests

'*... learning, in the form of fits and starts as well as discoveries based on serendipitous events and the recognition of unexpected patterns, inevitably plays a key role, if not the key role, in the development of all strategies that are novel*' (p 19).

Other authorities have pointed out that rational business planning as a concept is fundamentally unreflective of real-world practice: the sheer volume of data gathering needed to inform such a process would alone be unmanageable (Lindblom 1959). When considering information systems strategy in particular, Ciborra (1996) develops this point, suggesting that the rigidity of an explicit strategy-formation cycle would hinder flexibility to adapt to a changing business environment, and hence threaten the very purpose which a mechanistic approach to planning sets out to serve. Ciborra points out that many strategic uses of IT have come about almost accidentally, e.g American Airlines development of the SABRE on-line booking system. This began as a tactical level system developed to deal with a transactional problem, but eventually became one of the company's biggest sources of revenue in its own right. He suggests that

"*The strategic application of IT can be, then, the result of tactics, tinkering, bricolage, the bubbling up of new ideas from the bottom of the organisation, or it can be the outcome of an act of quantum innovation, whereby the existing organisational reality, the environment and IT applications are seen in a new light by the members*" (Ciborra 1996, p.180).

There have been empirical studies which demonstrated that rational planning very often gives way in practice to a more interpretive approach, seeking to 'satisfice' rather than optimise outcomes (see, e.g. Currie, 1995). Walsham (1993 p 143) describes the process of strategy formation to be '*a dynamic socio-political process within multi-level contexts'*. This is amplified by Checkland and Poulter (2006) when they suggest that efforts for analysis *and* synthesis go hand in hand in a process of inquiry. Lindblom and Cohen (1979) highlight the important role of interaction as a means to achieve problem resolutions.

"... in many cases a solution to a problem can be found either analytically or interactively. Settling on one or the other ... can also be done either through analysis or interaction, and so on. Settling on one or the other is often accomplished through habit, tradition, customs, or routines, rather than explicit analysis of the problem of choice. How much thought is required to establish interactive problem solving varies from situation to situation" (1979, p.28).

The purpose of forming a specific strategy for information systems comes from a view that planning is needed to ensure effective technological support for previously-adopted business strategies. Thus, this has sometimes been seen as part of an overall 'hierarchical' approach in which business goals and objectives are translated into plans for every functional area of the business – marketing, finance, human resources, etc… including information systems (Robson 1997). However, difficulties inherent in such a hierarchical view have long been recognised. For example, Earl (1989) suggests that attempts to connect exploitation of IT (in itself complex and imperfectly understood) to development of business strategies (that are always problematic and subject to disagreement) leads to a paradox of trying to bridge two areas of uncertainty by applying rigidly structured methods. In the earlier history of business exploitation of information technologies, it was often planned on an ad hoc basis and at operational or tactical levels of management. This is illustrated, for instance, in stage growth models of IT exploitation (Nolan 1979; elaborated by Galliers and Sutherland 1991). Here, the earliest stages (initiation) are characterised by scattered pockets of acquisition from departmental budgets, where managers at operational/tactical levels are attracted by projected cost savings from IT use. The next stage is described as contagion, as other areas of the business seek similar benefits from ad hoc application of IT. At this point, there is a realisation at the level of the business that IT usage is spreading and attempts are made to centralise and standardize, leading to inception of specialised IT departments servicing the rest of the organization. Stages labelled 'maturity' follow, in which 'senior' management recognize the potential of IS/IT to generate strategic advantage and the focus moves from the internal to the external environment. At the same time, management of information or data services (as opposed to technologies) is established. It is interesting to reflect that this model depicts not only a change in the focus of planning, from tactical to strategic, but a concurrent change of focus from exploitation alone to exploitation and *governance*. The attention of senior management is gained not by immediate recognition of the strategic potential of technologies, but by sudden awareness that a large proportion of the organization's resources are being taken up in acquisition of technologies on an ad hoc basis, and a consequent need to take *control* of value derived from this expenditure and the associated *risks*. Ciborra and Hanseth (2000) highlight the inherent paradox in this dual focus: exploitation and control. They suggest that most corporate IT infrastructures resemble collages or puzzles, and that the processes by which they were put in place are also characterised by confusion. They are:

'*… embedded in larger contextual puzzles and collages. Interdependence, intricacy, and interweaving of people, systems, and processes are the culture bed of infrastructure. Patching, alignment of heterogeneous actors, and bricolage (make do) are the most frequent approaches ... found ... irrespective of whether management was planning or strategy oriented, or inclined to react to contingencies*.' (p.3)

They go on to point out that much management literature is devoted to overturning this state of affairs. In its place, order is to be imposed through application of models and methods intended to establish '*a value-generating, integrated set of technologies, applications and processes*' promising enhanced productivity through control over this vital resource. However, when cybernetic models are applied in pursuit of control, this leads to ever more complex technologies and processes, creating a vicious circle in which it remains forever elusive. Whatever approach is taken, the locus of strategy formulation has often continued to rest with a small, elite group of managers, allowing little practical involvement from other stakeholders within the company. Consultation may take place among stakeholders about issues relating to strategy but it is open to question how far this consultation is comprehensive, or represents a true attempt to establish dialogue. Nor is it clear that the resultant opinions offered actually inform the decision-making processes undertaken by management. A

number of authorities (e.g. Argyris and Schon 1996; Levy et al 2003) appear to suggest that the views of individuals within an organizational setting are not always expressed effectively, nor are they necessarily acted upon. It is possible that this hegemony is in part derived from the shadow of governance that is always present in the minds of strategists. The term 'governance' can be related directly to ownership and control over strategy formulation, when used in a business context. Thompson and Martin (2005), for instance, define governance as '*the location of power and responsibility at the head of an organization*.' Ward and Peppard (2002) elaborate further:

'*How companies set the relationship between management, stockholders and the board of directors. Also included are how the company is affected by government regulations, and how the firm manages its relationships and alliances with strategic partners'* (p.46).

In both of these definitions, the wider community of the organization appears to be excluded from any relationship to governance of the business. However, the verb 'to govern' is defined by the Oxford English Dictionary in the following ways: *(1) to conduct the policy and affairs of (a state, organization, or people); or (2) to control or influence.* There is no inherent implication here of restricted participation. It is certainly the case that responsibility for governance may be imposed upon a restricted set within an organization, by the law or by government policy (see for instance the Sarbanes-Oxley Act in the United States or the UK Companies (Audit, Investigations and Community Enterprise) Act). However, it may be that such responsibilities can be discharged more effectively when participation in governance is widened.

2 STRATEGIC ALIGNMENT

Discussion of IS strategy often focuses on attempts to 'align' it with general business strategy. The implicit assumption here is that IS and business strategies are inherently separate phenomena. Evidence for such a discourse is apparent, for example, among contributors to Galliers and Leidner (2003). Of twenty contributed chapters in this well-known book on Strategic Information Management, fifteen contain references to 'alignment' or similar terms such as 'fit' or 'linkage'. (It should be pointed out that these terms are not necessarily used uncritically by the various authors.) This discourse highlights a need to explore underlying assumptions underpinning strategic thinking about organizational systems. Complex social systems, such as business organizations, are perceived to be affected by goals and values of the individual people within them (Schein 1992). We are reminded by Senge (1990) that

"*Today, systems thinking is needed more than ever because we are becoming overwhelmed by complexity. Perhaps for the first time in history, humankind has the capacity to create far more information than anyone can absorb, to foster far greater interdependency than anyone can manage, and to accelerate change far faster than anyone's ability to keep pace....organizations break down, despite individual brilliance and innovative products, because they are unable to pull their diverse functions and talents into a productive whole."* (Senge 1990, p.69)

However, the nature of these social systems, their sub-systemic structures and the relations which sustain them over time vary widely. An organization may be viewed as a purposeful human activity system (Checkland 1999). Every instance of such a system will have unique properties, since it is formed by interactions among unique individuals who are its members. Obtaining objective agreement as to the nature of that system is therefore problematic. The emergent properties of a system depend upon the viewpoint of any particular individual who considers it. For example, when a person enters a bank as a customer, he is likely to view this organization as a system for providing him with financial services. However, to a person who enters that bank as an employee, it may appear to be a system for providing her with a livelihood. Those properties which are perceived to emerge by each of these individual people, as well as the importance attributed to them, will be likely to differ. It has been suggested that organizational culture is formed over time through sharing of goals (Schein 1992). Such sharing can only be achieved through interactions and learning, providing a vehicle for negotiation

among differing perspectives held by individual members in context. Checkland (1999) refers to these perspectives as *Weltanshauungen.* We believe that every person has a multitude of competing and contextually dependent *Weltanshauungen*, formed through individual and collective sense-making processes and drawing on the unique life history that every living person brings to a situation. Individual perspectives change through time as a result of experience, and the perceptions by different individuals within a group about the same phenomenon will vary. For this reason, agreement on a single description of a 'real' human activity system will be elusive, and consensus on common goals difficult to achieve. Every individual will produce her/his own unique understanding of context, constructed through interaction with organizational systems and environment by means of a variety of sense-making strategies (Weick 1995). Power relationships within organizations are likely to influence framing of individual responses (Bateson 1972). An individual's sense-making is co-dependent with the organizational culture within which it takes place, and requires continual construction/re-construction through reflection over time (Schein 1992). This takes place through communicative interactions. Vickers (1970) argues that life consists in experiencing relations rather than seeking 'ends'. He challenges a cybernetic paradigm implicit in a goal-seeking model, suggesting instead a cyclical process in which experience generates individual norms and values. These in turn create a readiness in people to notice aspects of their situation, measure them against norms and discriminate between them. Our '*appreciative settings'* condition our perceptions of new experiences, but are also modified by them. Development of an appreciative system is thus ongoing over time as a backdrop to social life. We perceive two alternative paradigms to subsist regarding the nature of organizational systems. In the first of these, observers perceive an organization as a construct, in which a range of functional sub-systems come together to form an emergent, whole business system (Checkland 1999). An information system, viewed through this paradigm, is perceived as a distinct construct with a function to serve the whole. The purpose of IS strategy is thus to align IS/IT and business objectives. Where there are problems in achieving this end, these are often perceived to result from poor communication and cultural differences between business managers and technical experts (Peppard and Ward 1999). Issues arising over centralisation/decentralisation, control of resources, etc. are then often addressed by outsourcing. However, these authors go on to suggest that the perceived communication gap is in fact a myth, used to excuse continual disappointment with benefits deriving from IT investments. Empirical evidence suggests that performance is not determined by the ability of the IT sub-system to deliver service, but by the whole organization's ability to engage in effective partnership with such services to build a strong business. Peppard (2007) reinforces this point in criticising popular concepts and practices of IT service management. Such an approach focuses on delivery of IT services into the business from a separate IT functional unit, matching previously agreed service levels. This treatment of IT as a service fails to recognize the integrated nature of business activity. As Peppard put it:

"*A critical weakness of these approaches is that they assume that the user is the consumer of IT services, failing to acknowledge the value derived from IT is often not only co-created but context dependent"* (p 338)

The idea of a cultural gap appeared to be a convenient descriptor for symptoms of a problem, not the underlying causes. The persistence of this explanation for disappointing performance is shown in a survey was conducted by research company Freeform Dynamics Ltd in 2006, in which 100 IT managers from the UK financial services industry were interviewed about relationships with their peers in other areas of the business. Results revealed that business managers commonly express desire for improvements in both efficiency and effectiveness in IT services, and also desire more proactive engagement of IT staff with business concerns. Failures in communication and an 'us and them' culture were reported in a number of cases. A range of methods for coordinating of business and IT interaction were in use, but the study revealed that most success was perceived where several methods were used simultaneously. The number of 'touch points' between IT and the business were perceived to have a positive correlation with potential to deliver 'business value' by IT. Furthermore, the survey results suggested that this benefit was even greater when two-way communication, i.e. effective dialogue, was established, including joint planning and strategic decision-making. In an alternative

paradigm, observers perceive an organization as a construct which is an emergent property of interactions among individuals in a particular (business) context (Bednar 2007). This context includes IS and IT issues and activities, and resources related to them. Difficulties in communication between managers and IT professionals are a symptom, not a cause of problems. Where failure occurs, the real issue is not the IT sub-system's ability to deliver service but the whole organization's capability to harness IT effectively. Ward and Peppard (2002) examine the role of the Chief Information Officer within business organizations, as well as the case for 'steering groups' to deal with strategic IS/IT issues. Their discussion suggests a wide variety in practice and experience in different companies but they conclude that there is a need for IS/IT to be represented at senior management level. They suggest that this is becoming more likely as IS/IT becomes more critical to business success. At the same time, the argument for steering groups is based upon needs to improve fit between IS and business strategy, communication with top and middle managers, and to '*change user attitudes to IT'* (p.370). The term 'governance' in relation to information technology appears to be widely understood to relate to 'alignment' of technologies with business objectives. For example, in the IT Governance Institute (ITGI), declares that it

"exists to assist enterprise leaders in their responsibility to ensure that IT is aligned with the business and delivers value, its performance is measured, its resources properly allocated and its risks mitigated" (ITGI, 2007).

However, the extent to which companies currently adopt effective measures to discharge this responsibility is open to question. For example, research carried out by software provider Micro Focus in partnership with research organization Vanson Bourne in 2007 surveyed 250 CIOs and Chief Finance Officers across five countries (France, Germany, Italy, UK and US) in companies with revenues from $100m up to over $1bn. Less than a third of all respondents (29%) claimed that attempts were made to quantify the contribution that IT assets make to overall business performance. In smaller businesses, the situation appears to be even worse. In 2007, management service firm Partners in IT commissioned a study, the results of which suggest that medium-sized organizations in the UK tend to lack strategic focus in their deployment of IT. 28% of managers surveyed suggested that they had no IT strategy at all, 34% admitted to an ad hoc approach to IT expenditure and only 18% reported that a formal plan, agreed at Board level was in place (Cash 2007). Williams (2007) highlights a tendency for IT projects to 'linger on' even after it becomes obvious that they cannot be successful. He suggests this is due to intransigence of managers, since cancellation of a project before completion is seen as a sign of weakness and failure, rather than decisiveness and strength. He draws on research commissioned by the IT Governance Institute. 52% of the projects sampled were expected to lead to negative returns, while 31% actually destroyed value for the companies concerned. However, only 3% of projects were abandoned before completion. This suggests that managers were continuing to preside over projects that destroyed, rather than created business value. Furthermore, in many cases it was clear that warning signs were available in the form of changes in sponsorship, apathy by proposed users, lack of engagement from business managers or 'scope creep'. In other words, there was widespread expectation of failure within the organizations concerned, while those specifically charged with governance over the development of IT 'resources' were also those presiding over loss of value. In studies using resource based theory (Caldeira and Ward 2003; Peppard and Ward 2004) two factors appeared to be important determinants of levels of success in relation to IS/IT strategies. One was management attitudes towards IS/IT adoption and use. The other was IS/IT capability within the organization generally. In those organizations where IT projects were measured as successful, organizational performance was seen to derive from aspects of all business operations, including e.g. sales, marketing, logistics, production, and customer service within which IT was an integral part. IT resources were viewed as a dynamic, constantly changing business variable, requiring organizational competence to manage as part of overall business management. IS capability, affecting all aspects of the business, would therefore need to permeate all levels of the organization's activities. Further persuasion towards this view has been provided in a White Paper published by IBM in 2007 (Salvage and Dhanda 2007). This suggests that IT service departments are often both disconnected

from the business and internally divided. The paper calls for a new maturity, in which businesses evolve their attitudes to IT service management.

"*The IT organisation needs to emerge from its silo and understand the challenges the business faces, then adopt new tools and methodologies to benchmark its service against these challenges. Adopting these new, second-wave IT service management techniques will transform the IT organisation from a fragmented, reactive, tactical cost-centre into a holistic, proactive, strategic centre of innovation*." (Salvage and Dhanda 2007 p.5)

These investigations suggest that the second of the two paradigms described above may be preferable. Rather than viewing organizational systems as constructs consisting of interconnected elements, it may be more useful to view them as emerging from interactions of individuals, interacting in collective situations to develop and exercise their competences in context (Bednar 2007). Support for this view comes from Langefors (1966), who argues that the roles of information systems within an organizational context are so pervasive that IS is effectively synonymous with the organization itself, rather than a separate function within it. A new language for thinking and talking about IS strategy is needed, in order to avoid entrapment in assumptions based in an earlier, prevalent discourse of 'strategic alignment'.

3 MANAGEMENT AS FACILITATION

Sandberg and Targama (2007) point to a paradigm shift in management of organizations away from directing and controlling, towards sharing of values, culture and vision. However, they point out that this is often shown more in rhetoric than practice. A paradigm of management as directing, planning and controlling (Fayol 1949), which was prevalent in the past, is giving way to more team-oriented approaches better suited to the activities of 21st century organizations with less hierarchical structures and more complex business environments. Today, there is greater pressure to get things done quickly, effectively and efficiently in order to survive and thrive. Furthermore, it has been pointed out that the knowledge residing within a business may be its main source of sustainable competitive advantage, since other features, such as technologies or products, may ultimately be imitated by competitors (Senge 1990; Nonaka 1991). Harnessing 'know how' of employees, much of which may be implicit and embedded in skills they possess, is unlikely to be achievable through direction and control. Competence, or embedded knowledge, can only be rendered productive for an organization by motivating staff to apply it themselves in context. Peppard (2007) points out that mere ownership of information technology produces no benefit for a business. He identifies a number of key competencies he views as necessary if IT investments are to generate *business value*. First among these is the ability to create strategy – "*to identify and evaluate the implications of IT-based opportunities as an integral part of business strategy formulation and define the role of IT*" (p.339). Peppard goes on to point out that such a competence will be formed from a combination of business and technical knowledge, derived from a diverse knowledge base within the organization. Andriessen (2008) identifies dangers that lie in using certain types of metaphor when discussing the role of knowledge in organizational life. Sometimes, knowledge is spoken of as a resource, or a commodity that could have existence outside of the people who 'know' and hence be stored or transferred around the organization. He suggests that metaphors of knowledge creation in which the unity of knowing and acting are emphasised are preferable, but acknowledge that this then makes the idea of 'managing' knowledge more difficult to translate into practice. In Andriesson's words "*Maybe for a good role of knowledge in organisations we need less management, not more …*" (p.10). To put this in other words, there is a need for empowerment. Staff must be committed to team working and need *empowerment* to make decisions and respond quickly to the exigencies of business. It has been suggested that managers need to adopt the role of facilitator, rather than controller, to bring about such empowerment. Facilitation is described as comprising a number of elements (Weaver and Farrell 1998). These include identifying tasks workgroups need to complete; helping to encourage behaviour necessary to completing these tasks; encouraging effective interactions among groups of colleagues; and creating

processes which enable planning of tasks and problem solving. A disparate range of organizations formally espouse such a model of management. For example, the vision statement of IBM (US) emphasises "*Trust and personal responsibility in all relationships*"; South Birmingham Primary Care NHS Trust, in the UK, emphasises *'Management as facilitation'* in its Mission Statement; in Skandiabanken, in Sweden, formal management meetings are discouraged, employees are expected to take initiative for themselves and the Chief Executive Officer adopts an open door policy so that he is available to anyone wanting advice (Paddack and Marchand 2001). Rodgers (2007) points to a paradox that managers have formal authority to control business decisions but lack any control over the informal interpretations, expectations and competence of their staff. Successful management, they argue, lies in embracing this paradox rather than attempting to resolve it. Many authorities agree that success in business strategy depends upon effective leadership. Thompson and Martin place particular emphasis upon the role of leaders in giving direction and clarifying vision for business organizations. They include the following quotation from Sir John Harvey-Jones:

"*The task of leadership, as well as providing the framework values and motivation of people, and allocation of financial and other resources, is to set the overall direction which enables choices to be made so that the efforts of the company can be focused*" (Thompson and Martin 2005, p.441).

These authors link such a role clearly with the position of the Chief Executive Officer in a company. Barker (1992) suggests a role for individually-focused leadership in relation to bringing about change. He suggests that management takes place within an existing business paradigm, whereas leadership is required for a shift between paradigms. Support for this view may be found elsewhere, e.g. in Balogan and Hope Hailey (2004), who suggest that a role of leader as champion of change is vital to its success. However, these authors also point out that successful change management is context specific. At times, senior management attitudes may represent one of the barriers to be overcome, rather than a source of inspiration for change (Balogan and Hope Hailey 2002). Holmberg and Akerblom (2006) report on work that confirms a number of widely-acknowledged characteristics of 'leadership'. In a survey of middle-managers' views taken across 62 countries, leadership qualities such as being 'inspirational' and 'visionary' were endorsed. However, other characteristics such as 'team-oriented' and 'participative' were also identified as relevant. Argyris points out that the qualities valued in high-achieving organizations go beyond vision.

"*We are realising that in order to achieve organizational excellence, learning, competence, and justice are a much more realistic foundation than morale, satisfaction and loyalty*" (Argyris 1990, p xi).

He explains that learning leads to error correction; competence means solving problems so that they remain solved and increase organizations' capacity for future problem solving. Justice, he relates to actions based on a set of values and rules relating to organizational health. Lindblom and Cohen emphasise the role of interaction *between* people in problem-solving processes. Thus, the qualities of a leader may be less important than the qualities of interactions among teams.

"Numerous forms of human interaction ... (have) the effect of reducing a social problem, thus achieving an improved outcome. They are thus alternatives to understanding, thought, or analysis as a method of reaching a "solution" or a desired improved outcome. And ... policy makers in any society ... always have a choice between trying to find 'solutions' (or preferred outcomes) by arranging to have a given problem frontally attacked by persons who will think it through to a solution, or by arranging to set in motion interaction that will, with the help of analysis adapted to the interaction, eventuate in a solution or preferred outcome.' (1979 p.25).

Sjöstrand (1997) highlights a role for 'irrational' as well as rational behaviour in managers,

"... it should be natural for a manager to embrace, simultaneously, both rational and 'irrational' behaviour. In other words, interactions based on a calculative logic both presuppose and produce the more socially informed, ideal-based and genuine interactions, and vice versa. The same reasoning also applies with regard to the emotional, habitual, intuitive and aesthetic ingredients in the case of

cognitively based uncertainty-reduction. Given this more complex perspective, the definitions of rational and 'irrational' managerial actions become less obvious. The contradiction between the concepts gradually dissolves, and its demarcations become a matter specific to a time, a situation and an individual." (p.197).

Whilst this vision of facilitation is likely to be adopted by organizations in relation to tactical and operational levels of management, there may be reluctance to embrace it at the level of strategy formation. We suggest that this could be due to the constraining influence of traditional cybernetic models of governance. However, there are arguments to suggest that a more participative approach to strategy formulation, and greater ownership of 'governance' issues by a wider group within organizations, may be more beneficial to their prosperity. A useful illustration of this comes from Semler (1993) who describes how a participative approach to management was used to transform a stagnating business into one which was dynamic, innovative and successful. He discusses how the company embraced empowerment, involving the whole workforce in decision-making and trusting individuals to work together to apply their competences in a constructive way. He describes the new approach to management in the following way: "*One of my first acts ... was to throw out the rules. All companies have procedural bibles ... Who needs them? They discourage flexibility and comfort the complacent*" (p.4). However, Semler also makes it clear that a facilitative approach to management does not, in his view, compromise *governance:* "*… worker involvement doesn't mean that bosses lose power. What we do strip away is the blind, irrational authoritarianism that diminishes productivity*" (p.5)

4 GOVERNANCE, RISK AND INNOVATION

A key dimension of organizational governance is risk. Risk is inherent in business activity and profit is its reward. However, all organizations seek to avoid some types of risk in order to sustain prosperity and stability. During the 1990's, risk management was given a high profile in management research. McKeen and Smith (2003) discuss the role of risk management in relation to IS as follows:

"*A successful risk management practice is one in which risks are continuously identified and analyzed for relative importance. Risks are mitigated, tracked and controlled to effectively use resources*."

This description reflects a tactical, three-stage process of risk identification, assessment and control. However, at strategic level, risk management has been more problematic, as the Enron case has exemplified. Holton (2004) describes an approach focusing on independence, whereby risk *managers* are separated in role and responsibility from risk *takers*. This has two particular implications. First, risk identification and assessment are carried out by outsiders, who have no day-to-day involvement in the risky activities in question. Their knowledge of the situation is thus always second-hand. There is also an important implication here that risk takers require 'help', i.e. that they are regarded as less able and trustworthy than 'independent' risk managers and are, in consequence, allowed to off-load their responsibility. Holton goes on to suggest that professional risk managers might better be employed as facilitators, supporting risk takers in their day-to-day activities, rather than taking on the onus of their mistakes. It is a feature of business organizations in the 21st century that knowledge creation and sharing among teams of people, to bring about and support innovation, are vital to their survival and prosperity (Senge 1990). If innovative activity is to be encouraged, it is necessary for managers to embrace a culture of empowerment. We believe that widened participation in governance is a necessary part of this process, since otherwise exploitation of creativity and innovation cannot be realised. Approaches are needed that can encourage such widened participation. These might be found, for example, in socio-technical models, such as those devised by Enid Mumford and others at the Tavistock Institute (Mumford 1983). The socio-technical approach to work design was intended to integrate both optimal technical solutions to problem situations and individual aspirations for variety, stimulation, opportunities to participate in making decisions. However, in order to participate effectively, people need support to inquire into their own, contextually-dependent views of organizational challenges and issues. A vehicle such as the Strategic Systemic Thinking framework

(Bednar 2000) could be used in order to generate, through an iterative process of contextual inquiry, a knowledge-base about the range of perspectives available within the organization. Efforts to widen participation in management may be undermined by lack of recognition of the uniqueness of each particular individual's experience of organizational life. An unconscious adoption of a logical empiricist (LE) tradition by strategists may account for this. Within a LE tradition, the focus of attention rests on increasing the precision and clarity with which a problem situation may be expressed (Radnitzky, 1970). This can lead to an artificial separation of theory from praxis, of observation from observer and observed. However, 'knowing' about organizational context, formed by on-going construction of meanings through synthesis of new data with past experience, may be deeply embedded and inaccessible to individuals concerned. If individuals are to be empowered to express their knowing in order to inform a process of strategy building, there are substantial barriers to be overcome. The expression of knowing in the context of organisational change takes place in a context of ambiguity and uncertainty (Weick 1995), and therefore of risk (Argyris 1990). Furthermore, IS related change will not only be influenced by organizational context but is likely to influence that context in turn in an iterative cycle (Walsham 1993). Hermeneutic-dialectics (HD) goes towards emancipation and transparence rather than clarity and precision, emphasising the self-awareness of human individuals (Radnitzky 1970). From an HD perspective there will be recognition of the ambiguities inherent in socially-constructed world views. Vehicles need to be found to promote expression and enable individual reflection and evaluation, in order to complement the clarity of LE-based approaches.

5 CONCLUSIONS

The authors believe that business organizations of the 21st century may benefit from a more participative approach to strategy formation and governance. A wider community of staff are then encouraged to share their experience of aspects of organizational life in a creative process. Complexity in organizational systems and environments, pressure to deliver better services, faster and more productively, and structures which favour team working, all combine to suggest benefits in collaborative efforts. A need to harness 'know how' within businesses as a means to enhance sustainable competitive strategies is highlighted. The authors also note the focus of attention given to risk factors in modern business organizations and suggest that a more facilitative approach to management may be beneficial in dealing risk. A view of organizational systems in which emphasis is placed on functional sub-systems such as Human Resources or IT Services may lead to a distorted approach to management. The authors believe that a perception of an organizational system as an emergent property of the interactions between individuals may lead to better management practice and co-ordination. We advocate a move away from an undue focus on 'alignment' between IS/IT and business strategies towards one which helps to promote individual and collective responsibility for developing IS capability. Capability to use whatever resources are available in the interests of the organization, including IS/IT resources, is needed throughout the organization, and a view of management as facilitation may help to promote such capability. A paradox arises, however, in that organizations need to harness the capabilities of a wider organizational community in generating strategic vision, while individuals within that community may not be able to access their own, contextually dependent 'know-how'. Vehicles are needed by which individuals may be supported in their sense-making processes, explore multiple levels of contextual dependencies and develop a creative dialogue as participants in strategy formation. At the same time, ways must be found to bring about alignment between facilitative management and governance, so that business value from IT is realised. Strategic vision requires human decision makers to interpret data in relation to experiences, make sense of context and create understandings of alternatives. Formulating strategy becomes a collective, creative sense-making process which is contextually dependent, individually unique and constantly changing. We look always forward because, "... *After all, tomorrow is another day!"*

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