The evolutionary organization: avoiding a *Titanic* fate

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Abstract

States that change is a topic of crucial concern to all organizations in these turbulent business times. Its impact increasingly leads to business demise, in spite of the wealth of information purporting to help managers solve change-related problems. Contends that, in dealing with change, and ultimately in ensuring business survival, the mindsets of the organization's managers are the most critical factor. Approaches influencing management thinking positively based on two simple notions: first, that the best way to deal with mindsets is to keep them from hardening; second, that by changing activities and tools we can change habits of thinking and learning. Calls an organization operating according to these principles an evolutionary organization (EVO). Illustrates that the EVO flourishes in the region of disequilibrium between an organization's formative and normative operating modes. The key to maintaining this balance in the EVO is the judicious exercise of leadership and strategy. Explores literature relevant to the EVO and describes systemic initiatives designed to renew mindsets and confer high potential for business competitiveness. Illustrates the approach by detailing the case of a major financial service organization.

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Introduction

The wealth of material in books, journals and our tribal memory addressing change as a topic in one form or another is overwhelming. This accumulated lore has surely been building since the dawn of mankind, and includes the scholarly[1,2], the populist[3] and the futuristic[4,5]. Unfortunately, if current business news is to be believed, this body of knowledge contributes little to organizational survival. Modern-day managers, immersed constantly in life-or-death competition, can hardly be blamed for echoing Ackoff[6] who wrote "What in the world is happening to the world?"

The learning organization has been described as an organization that has the potential to assist managers successfully to address critical change-related business issues[7]. A practical definition of the learning organization and its application to "change proofing" has been provided by Drew and Smith[8]. In spite of cases cited in this journal and other publications, and a recent how-todo-it book[9], the learning organization as "journey" [7] has turned out to be both difficult and hazardous, with few demonstrably successful passages. Garvin's [10] remark in 1993 seems to ring as true as ever "... despite the encouraging signs, the topic (Building a Learning Organization) in large part remains murky, confused, and difficult to penetrate".

We continue to believe that the learning organization is a useful organizational metaphor for dealing with change, but feel that the explicit emphasis on "learning techniques" in modifying mental models[7] has been counter-productive, and that implementation methods have been largely impractical. In our experience current psychosocial[11] and cultural[12,13] methodologies are also not helpful initially.

In this paper we will examine evidence from many sources for our contention that in times of complex change, the critical step towards organizational effectiveness, and ultimately for organizational survival, is unfreezing managers' mindsets, or preventing them setting at all. In the following sections we will review in detail how these mindsets correlate with successful organizational change, or more typically the lack of it; unfortunately, like the officers on the *Titanic*, managers minds often remain stubbornly fixed as they bear down on their business icebergs.

Our approach, which we will describe and illustrate with a successful case study, results in what we call the evolutionary organization (EVO). The approach is based on two simple notions: first, that the best way to deal with mindsets is to keep them from hardening; second, that by changing activities and tools we can change habits of thinking and learning.

In this article we will review and discuss literature relevant to the EVO. Various systemic initiatives will be described which will enable managers to avoid running their corporate *Titanic* on to a competitive iceberg. We will also explain how these initiatives can be designed to renew mindsets and confer high potential for company competitiveness and longevity. The initiatives discussed are capable of incremental implementation and are founded on familiar practical behavioural enablers. Other organizational development methods[7,11-13] can be introduced and will take hold when this supportive environment has matured.

As we will illustrate, the EVO flourishes in the region of disequilibrium between an organization's formative and normative operating stages. EVOs bring the formative-normative exploration-exploitation tension into a special kind of balance, so that new ideas and innovative genotypes are forever nibbling away at the status quo, and minds have no opportunity to become set. If the EVO slips too far into the high-risk formative mode or the diehard normative mode it loses these desirable properties.

The key to maintaining this balance is the judicious exercise of leadership and strategy. Disequilibrium is fostered by deliberately structuring the EVO to promote creativity, learning and responsiveness to its environment. Since control and co-ordination are exercised through designed connectedness, organizational size is not a critical factor.

We believe that the work described here confirms that EVOs exemplify a promising new way for managers to deal successfully with change, and for organizations to "steam" safely through dangerous business waters.

The "Titanic syndrome"

Most managers are constantly preoccupied with change, reacting to threats and opportunities, and initiating activities based on their beliefs and aspirations. They are guided by the wealth of work which has been published

dealing with organizational change, including claims to understand and predict it specifically[1]. They design their organizations to "tame" change, and they train their employees to "manage" it. Indeed, the literature is replete with authors who see this mastery of change as critical to the survival of the modern company. Unfortunately, if current news sources are to be believed, organizations have not made a very good job of it. So if our capability to address organizational change successfully is at least adequate, why are things so bad? We believe the answer lies with the *Titanic* syndrome; once the entrepreneurial business cruise is over, managers simply do not believe their particular *Titanic* is sinkable.

Like the officers of the *Titanic*, managers do not see any need to slow their ship down when warned of looming business icebergs. When the inevitable happens, they seek to create the illusion of progress through "change management". This is almost invariably an exercise in foundational (level 1) learning[14], "learning to do things right". Even as the business is sinking the emphasis is on the best way to re-arrange the deckchairs. The dilemma is that the managers responsible for the disaster are the same managers who are notoriously disinterested in objectively examining their own mindsets, and the part they played in the creation of the problem[15].

We agree with authors such as Senge[7] that change-related problems cannot be addressed by managers whose mental models obscure and/or contribute to the problems. All of an organization's competitive strategies, such as total quality control, re-engineering and customer value, come to nothing if its managers' business paradigm is not appropriate. When managers fall victim to the *Titanic* syndrome, believing their ship to be "unsinkable", it will make perfect sense to agonize over where the deckchairs should be stacked. As Kuhn[16] said, "Learning within an existing paradigm is puzzle-solving".

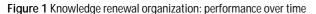
If "education is the stem that winds the watch" [17] then someone has forgotten to reset the time. In spite of the vast sums spent on management learning, management thinking in the 1990s is mired in industrial age thinking almost as much as it was in the 1980s[6] and 1970s[3]. Because of this managers easily succumb to the *Titanic* syndrome. Predictability is still the basis on which most organizations are run. In the next two sections

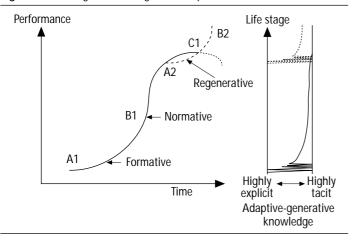
we show that this attitude is an unintended natural consequence of how organizations grow and change over time.

How organizations change over time

The left side of Figure 1 presents simple curves relating organizational performance to time. This diagram is consistent with the original work of Lewin[18] on the dynamics of change, and its cultural elaboration by Schein[12]. As shown, particular life stages of a company (formative-normative-regenerative) can be associated with the different portions of the curves [12,19,20]. The right side of the figure shows the extent to which adaptive-generative knowledge is explicit or tacit in the organization. Adaptive-generative knowledge is that knowledge which the organization could leverage to survive in the face of change. This diagram, and the following interpretation, are reasonably typical of the life of a firm today. We call such a company a knowledge renewal organization (KRO).

First we examine the formative KRO. At point A1 in Figure 1 the founder has a vision of the "ideal" business and the organization to carry it out. At this point the KRO is borne. During the following period the founder's vision is clarified and made practical. Knowledge results from a mixture of type 1 and 2 learning processes[14]; respectively "learning to do things right", and "learning to do the right things". As shown on the right of Figure 1, adaptive-generative knowledge (including the vision) is made explicit through the ongoing vigorous tacit-explicit interchange of knowledge which is an extremely important attribute of a formative organization. By





continuously tapping into its tacit adaptivegenerative knowledge the organization leverages this intangible asset for unique unassailable competitive advantage. Although the KRO is highly entrepreneurial, it displays a marked degree of employee alignment based on commitment.

Next we examine the normative KRO. At point B1 in Figure 1 the KRO has become established, resulting in the adoption of successful routines, norms, beliefs and cultural traits. As shown on the right of Figure 1, a mixture of tacit and explicit adaptive-generative knowledge exists in this phase, but knowledge involving "how things really operate around here" is becoming increasingly tacit. The KRO has become hierarchical and largely bureaucratic. There is a moderate to high degree of employee alignment based on conformity. Learning now involves the type 1 learning process[14].

Finally we examine the obsolete KRO. At point C1 in Figure 1 a discontinuity in the KRO's business has taken place. At this stage the organization has become self-concerned and arrogant. Important day-to-day knowledge is wholly tacit and there is a high degree of employee alignment based on indifference. If the organization is aware of its looming problem, and is practising type 2 and deutero learning[14], then the KRO may develop a new paradigm beginning at point A2. This will include fresh goals and strategies for achieving them. Under these new conditions, as shown in Figure 1, explicit and tacit adaptive/generative knowledge will again be vigorously exchanged. The organization will once more be aligned through commitment. Assuming that the KRO successfully adapts to the new conditions, it will advance along a regenerative curve through B2 to repeat normative-(obsolete)-regenerative phases until its final demise.

Succumbing to the "Titanic syndrome"

As we further explore Figure 1 we can readily understand how management minds become set, and how traumatic revolutionary corporate and personal upheaval will almost always be a feature of the life of even exemplar KROs[21]. We think it is useful to frame this topic in terms of "mindsets" rather than "mental models" since this term better represents the fixed defensive nature of much management thinking with regard to

change[11], other than during the organization's formative phase.

Ironically it is at point A1 that the KRO comes closest to the desirable entrepreneurial features espoused for today's turbulent markets[7,22,23]. For example, the formative KRO exhibits an open, inquiring culture; it freely explores mental models; it displays the intention to "create its own future"; its tacit-explicit adaptive-generative knowledge is continuously refreshed; and, it generates and esteems intellectual capital.

Of course the formative KRO is a chaotic place to work. The need for administrators and accountants seems logical to its managers, and business lore is replete with lessons concerning organizations that did not move quickly enough from the formative to the normative mode. Since organizations which continue to do business successfully in an highly entrepreneurial fashion do not fall within the KRO paradigm, start-up approaches do not seem to be explored as models by KRO managements [24,25]. That an organization (the EVO) could be designed to exist in the disequilibrium between the formative and normative stages, leveraging the "best of both worlds", has not been considered in the literature to the best of our knowledge.

As we move on from point A1, most firms enter the normative period of stability and success[26]. Unfortunately, the alignment so often sought by the normative KROs is based first on conformity and then on indifference, becoming a "psychic trap" [27]. This is where the issue of mindsets emerges. It is again ironic that in its most profitable phase, the KRO is sealing its own fate as we will illustrate. Pedlar et al.[19] call this "doubling", whereby an organizational strength becomes a debit. We expect people to perceive their world objectively, but they do not [28,29]. The KRO creates a paradigm based on its own success. However "a paradigm is both a blessing and a curse; a blessing when it allows a large and varied group to work harmoniously together; a curse when it creates a perpetual and pervasive conceptual inertia that blinds them to the need for change" [16].

As the KRO continues to prosper norms and rituals are taken for granted. "Espoused" knowledge is made explicit in manuals, procedures, and broad statements of mission and values. In contrast, the important day-to-day operational knowledge and "in-use" mind-sets[14] are made more and more tacit, as

shown in Figure 1. During this period important progressive initiatives are attempted by the organization[30]. However, such initiatives are founded on type 1 learning[14] and are related to "doing things right" rather than type 2 learning[14], related to "doing the right things". In other words, re-arranging those deckchairs rather than reconsidering course and speed. The organization becomes increasingly dependent on "learning only from its own operating manuals" [13]. As Raymond Smith, Bell Atlantic CEO, recounted, "The organization adopts an implementation mentality. It is run not by business managers who are held accountable for end results but by 'maintenance managers' who are held accountable for improvements in a process or a practice exactly as written. Ways we were accustomed to operating impeded our ability achieve our goals" [31].

An organization's culture helps it simplify and make meaning of its internal and external environment, and results from the mutually reinforcing mindsets of its employees. The organization's dilemma is to maintain an open and refreshed culture as its employees seek constancy. In the normative KRO the process of seeking stability becomes a vicious cycle. Its culture becomes increasingly inward focused, more and more entrenched, politicized and bureaucratic, and management mindsets become more and more inflexible and closed. Boisot[32] talks of "convergence" in these conditions, where individuals come to acquire similar characteristics and become more alike.

This is productive when the collective mindsets are in line with reality. Unfortunately, this does not long remain the case, as Schrage[33] says, in quoting Janis[34], "the well intentioned well educated hardworking sorts that tend to run large organizations end up mutually reinforcing their biases all the way to self destruction". Hammer and Champy[35] come to similar conclusions: "Executives think their companies are equipped with effective change-sensing radar, but most of them aren't. Mostly what they detect are the changes they expect ... the changes that will put a company out of business happen outside the light of its current expectations, and that is the source of most change in today's business environment".

As we have said, culture is the accumulated shared learnings of a given group, covering behavioural, cognitive and emotional elements

of the group's psychological functioning. The group's mindsets and shared assumptions derive their power from the fact that they operate outside awareness[36]. Humans get locked into believing their own seamless web of unconscious beliefs and subtly moulded perceptions. Once such patterns have been learned, anxiety alone is enough to keep them going[12]. Argyris has presented a comprehensive review of such managerial defensive mechanisms[11]. It is helpful to regard these processes of perception as acting basically like a conditioned reflex. It takes time to build up the memory-based readings, but once this is done, the responses are so fast that it is difficult to see their mechanical nature [36].

It has been shown time and again that a clear, strong organizational identity is not necessarily good for business in the long term[27]. Organizational culture that lacks adaptive/generative values at its core ultimately undermines performance[24] and at the same time limits and biases capacity to perceive and understand a new vision[12]. Culture becomes an integral element of organizational capability through the power of the mindset to define what is knowable and actionable. The roots of disaster are sown as the organization's collective mindsets grind a cultural lens through which to view their seemingly narrow, featureless business world.

We now live in an age of "punctuated equilibria" [37] where events often outstrip the projections of even the most knowledgeable experts[17] and businesses are especially exposed to discontinuous change[38]. Zuboff[39] notes that "The rigid separation of mental and material work characteristic of the industrial division of labor and vital to the preservation of a distinct managerial group ... becomes not merely outmoded, but perilously dysfunctional". Donaldson and Lorsch[40] state that managers often do not discuss corporate survival at all, although they do tacitly include it in their planning. These authors also conclude that top management's freedom to set strategic direction in the mature industrial organization is significantly constrained. In any event, the KRO meets its crisis precisely at the time when there will be the least spirit, leadership and explicit adaptive-generative knowledge in the organization to sustain the creative and innovative initiatives required[12].

Given the influence that the *Titanic* syndrome exerts over KRO managers, it is no

surprise that they continue to behave in obviously ineffective ways, even when these behaviours threaten the survival of their organization. Typically management responds to serious environmental impacts by reorganizing only those internal features required to preserve its current autonomy, i.e. the deckchairs.

At point C1 in Figure 1, the obsolete KRO has two choices: abandon ship and lose everything, or "right quick" come up with a new plan. Unfortunately, "Little is known or understood about the process of reorganization and rebirth" [12]. In other words, it is best to avoid this situation altogether, and only a fool would be caught in this predicament more than once.

The roots of the evolutionary organization

From the preceding sections we can see why managers' minds become set, and how catastrophic corporate and personal upheaval will be a sporadic but inevitable feature of the KRO as it is presently constituted. How then can we break free of the paradox that "the greater the corporate success the stronger grow the seeds of future corporate failure"?

Many authorities believe the answer lies in continuously upgrading and leveraging the knowledge base of the organization. This is done by fostering a climate of learning for employees, and particularly for managers. A company adhering to this philosophy has come to be called a learning organization. Unfortunately, this concept is like a cubist painting - full of ambiguous viewpoints. For example, in Garvin's[10] opinion, "[their] discussion of learning organizations have often been reverential and utopian, filled with near mystical terminology. Paradise, they would have you believe, is just around the corner". Handy[41] says "The Learning Organization is a term commonly in vogue. It is, however, less than obvious what it means, except that clearly it is a good thing to strive to be"; Kofman and Senge[42] (the learning organization's principal popularizer) say: "There is no such thing as a learning organization. Learning organization is a category that we create in language ... we are taking a stand for a vision ... it is not the vision but what it does that matters ...". Davis and Botkin[43] assert that "The *last* thing you want to grow is a learning organization. First

you need to grow a learning business". For our part, we have followed Pedlar *et al.* [44] in viewing the learning organization as a metaphor which must be interpreted by each practitioner to suit their own context; our interpretation is given in [8].

Unfortunately, as Garvin[10] puts it, "Beyond high philosophy and grand themes lie the gritty details of practice". Anyone who has had practical experience of introducing a learning organization initiative knows how difficult the planning task quickly becomes, and how rapidly organizational resistance forms. These practical difficulties result from not only the complexity of the learning organization concept and the mindsets discussed previously, but also because not everyone is a self-motivated natural learner. For example, in our experience, managerial communities seem to break down into 15 per cent of individuals who are active continuous learners, 60 per cent of individuals who have potential for some form of learning if they can be convinced of its necessity, and 25 per cent "couch-potatoes" who are blocked from learning for various reasons. The reader may wish mentally to position their senior managers along this continuum.

This is not to say that psychological[14], social[12] and metanoic[7] approaches are not effective in the long term. However, they are very difficult to introduce unless a supportive environment already exists, and the initiating practitioners are dedicated and courageous. Given even the most advantageous conditions, an initial successful intervention may still convince the organization's members to band together to get rid of the intruding culture. Practitioners will invariably conclude that these routes are not sufficiently robust and practical in the formative stages to carry the weight of the learning organization or its look-alikes to the "point of no return".

What, then, are we to do? Abandon ship and lose everything or "right quick" come up with a new plan? But what plan? In the next section we set out our recommended strategy. It promises survival, and if successful, ensures we are never again caught in this predicament. The answer lies in first purging, and then never again contracting, the *Titanic* syndrome; the answer lies in developing what we call the evolutionary organization (EVO).

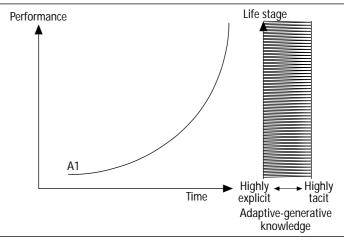
Principles of the evolutionary organization

According to Kotter and Heskett[24], "Only cultures that can help an organization anticipate and adapt to environmental change will be associated with superior performance over long periods of time". This is illustrated in Figure 1 where catastrophic re-invention of the KRO will almost inevitably be required. Lessem[45] suggests that an adaptive organization is the only effective answer; unfortunately such an organization is not necessarily free of fixed mindsets and other KRO debits.

When we considered the newly founded organization at point A1 in Figure 1, we suggested that it seemed to display all the entrepreneurial features espoused for success in today's turbulent markets. For example, it exhibits an open, inquiring culture; it freely explores mental models; it has the intention to "create its own future"; its tacit-explicit adaptive/generative knowledge is continuously refreshed; and, its intellectual capital is fully valued.

If the KRO could be converted to, and/or continuously balanced in a near-formative mode over an extended period of its life, as shown in Figure 2 starting at point A1, its many desirable features would be preserved e.g. its entrepreneurial structural fabric [46]; superior performance over long periods of time would then eventuate. Suppose such properties could be melded with desirable features of the normative mode, such as care not to jeopardize the business unnecessarily, and maintainenance of critical standard routines. Then, if the melding could be achieved without the organization over-

Figure 2 Evolutionary organization: performance over time



balancing into the normative phase, we would have the "best of both worlds". We call such an organization an evolutionary organization (EVO).

The intention here is not so much to distance the EVO from the learning organization, but to describe a learning organization developed in a specific, very practical fashion, displaying specific, practical, entrepreneurial attributes. For example, as shown at the right of Figure 2, the EVO is designed such that there is a very rapid and continuous exchange between explicit and tacit adaptive-generative knowledge, with the result that mindsets have little opportunity to become frozen. The accumulation of attractive standard elements from the normative phase must then be carefully monitored to maintain the formativenormative balance, since standardized elements can quickly propagate themselves to engulf the EVO.

The learning organization attempts to encourage development of the self-renewing, reflective practices critical for business success[47], by explicitly focusing on learning. Learning techniques rather than business techniques are introduced at the first step. As noted previously, learning does not come easily to everyone. The EVO accomplishes the same goals by reversing this process. In this regard we take Drucker[48] quite literally when he asserts that "There is a need to change deeply ingrained habits to deal with the turbulent change upon us. What these needs require are changes in behaviour. But 'changing culture' is not going to produce them", and "If you have to change habits, don't change culture, change habits. And we know how to do that" (emphasis added).

We deliberately design the systemic structure, processes and tools to develop specifically an environment where learning will be essential to carrying out the roles of all employees. By changing the rules, all employees, including managers, are forced to change their habits of thinking and learning without necessarily being made aware that this is happening. In this way 75 per cent of the community will be learning rather than just the 15 per cent natural learners. Indeed, since the emphasis is placed on performance, driven by business outcomes, the whole organization is concentrating its energies towards its own continuing business viability. Re-engineering[35] and informating[39] are other examples where the structure is

addressed first, so that performance is facilitated naturally.

As we know, culture evolves as individual workers perform everyday activities. The EVO culture is "pulled" into being by mandating the new structure, processes and tools. The learning organization approach is based on first changing the organization's culture; however, trying to change the way an organization goes about its work by first changing its culture is like pushing on a rope.

A key concept with regard to the feasibility of forming and/or maintaining an EVO is that limits to competitive development are internally imposed[6]. If KRO mindsets are changed, the EVO is possible. Bardwick[49] supports, with examples, the idea that an organization can develop and maintain a start-up style of operation. A particularly relevant example of the introduction of the EVO philosophy has been published recently[50]. Two managers from Hewlett-Packard were given responsibility for re-engineering a complicated product distribution process. First they explained the ground rules to their 35-person team, then gave them some training, and then refused answer any more questions, or to tell team members what to do. In addition, much of the typical task-force framework was removed; there were no supervisors, no hierarchies, no titles, no plans, no job descriptions and no milestones. The initial result was chaos. Then team members began to do simple things which they built into more complex arrangements, as Kelly[51] has recommended. The motto became "Don't tackle complexity with complex solutions; deal with bite size problems one by one". In this way the team learned by doing. Projects of this size and complexity almost invariably come in over budget and behind schedule, or simply fail. In this case the team attained its goals, and the new system was introduced on time and within the budget. HP calls the approach "Managing by getting out of the way". Team members in feedback to a Fortune magazine reporter expressed pride in their achievement, and enthusiasm for the approach.

Inspite of its successful ending, the Hewlett-Packard story is consistent with other work indicating that such growth never occurs smoothly[52]. Likewise, the EVO will not be an easy organization to work in, with its constantly shifting processes and structure. Paradoxically this confers the long-term stability

that is so craved by everyone[6]. This has certainly been the Japanese experience; as Koji Kobayashi, CEO Nippon Electric, says "'Companies that look unstable are the most stable in the long run; companies that look stable, the most unstable" [53].

We have said that the start-up organization and the EVO create organizational knowledge through tacit-explicit knowledge interconversion, as do the Japanese companies described by Nonaka and Takeuchi[22]. These authors contend that such Japanese companies are especially good at bringing about innovation continuously, incrementally and spirally. We agree with these authors that the most powerful learning comes from direct experience; this is in contrast to systems thinking and other cognitive approaches which are limited to the mind. However, it is our contention that adaptive-generative knowledge is the most critically important element in the tacitexplicit conversion process, since it relates directly to survival.

In the EVO, the essence of innovation is to recreate the world according to a particular ideal or vision. The knowledge involved has to be built, and requires frequent and laborious interaction among members of the organization. Checkland[54] notes that knowledge is only a snapshot or trend; however, the disorder and interaction in the EVO give rise to true learning. Nonaka and Takeuchi[22] assert that "The major job of managers is to direct this confusion toward purposeful knowledge creation. Both senior and middle managers do this by providing employees with a conceptual framework that helps them make sense of their own experience". Drucker[55] has suggested "one of the most important challenges for any organization is to build systematic practices for managing a selftransformation"; in the EVO this secondorder learning[14] is an every day task. The EVO develops "dynamic capabilities" which are the organizational abilities to learn, adapt, change and renew over time, based on search, problem solving and problem finding at the organizational level. These dynamic capabilities are exercised in the tension which exists between the need to operate from sound business foundations and the need for fundamental business transformation over time.

In the EVO, as in the start-up organization, intellectual capital is given its full worth. That is, intellectual capital is valued for its intrinsic financial value and for its potential to build

the business. Intellectual capital, together with financial capital and tangible capital, form the organizational capital system. The power and harmony in the organizational capital system govern an organization's business capability and potential. Intellectual capital is itself a subsystem containing the elements human capital, structural capital and customer capital[56]. These often invisible assets are enhanced in the EVO, forming a critical source of competitive power and adaptability.

The evolutionary organization – an operational perspective

Although Figure 2 shows a smooth performance curve for the EVO over time, we envisage that in reality this diagram represents innumerable overlapping formative-normative curves, each occupying extremely short time frames as bursts of earning-energy [49] follow one another in rapid succession. We think of the EVO as existing in this disequilibrium, leveraging the tension between the formative and normative phases. Schon[57] caught the spirit of an EVO when he wrote "The business systems as a whole had been significantly transformed, but through a kind of systems-interaction managed by no one. An innovation in one part of the system led to another, creating waves of new requirements which others in the system had to respond to in different ways. To each element in the system the wave brought requirements or opportunities for new products and services. The diffusion of product-innovation contributed to the overall transformation of the system whose character became clear only after the fact".

Within such a pliant and agile company there are rules, but the rules may be broken, and there is questioning, creativity and innovation. As is typical of the start-up mode, the EVO dares to accept and achieve continuous change and surprise[8], swimming in many interpretations, discussing, combining and building on them. Co-operation, productivity, and efficiency are emphasized as people work to achieve, not to control. Decentralization and diversity are paramount, but do not block the flow of ideas between regions[58]. There is flourishing teamwork, and people are challenged to create an organization of "winners". Employees are challenged to develop a culture that makes it clear that "What's my job?" is

the wrong question; they are continuously asked instead to answer "What's my function? What's the purpose of what I am doing? What value do I add?". As Peters says "'If it ain't broke, you haven't looked hard enough. Fix it anyway" [59].

In an EVO, the focus on contradictions demands new perspectives for reconciliation and collaboration to resolve the ambiguities and dilemmas. This results in natural learning in the sense described by Dickens "I took a great deal o' pains with his education sir; I let him run the streets when he was very young, shift for his-self. It's the only way to make a boy sharp, sir" [60].

Computer-telecommunications networks most effectively facilitate the designed connectedness that enables the EVO to develop its most potent collaborative infrastructure, and provide the current through which knowledge can travel instantly across the organization. The EVO's identity and purpose are embodied in the network for all to access and fashion dynamically, contributing to the EVO's creative tension. Command and control hierarchies are no longer required since the virtual workspaces are put to good use in maximizing coherency[39,61-63]. These networks can be extended to include not only employees out to the periphery, but also the customers and suppliers; in this way customer capital[56] is enhanced. Networking is also a strategic resource with social as well as efficiency effects [64]. It has a unique capability to restructure operations and hardly a single aspect of business is not touched. We believe changing the tools changes who we are. People pay attention to different things, and depend on one another differently. This encourages synthesis of members' interests, and the flow of value-adding knowledge helps legitimate the organization as a learning community[65]. As the EVO evolves, learning is continuously occurring, even if transparently, and the EVO's intellectual assets are enhanced[53].

The EVO's collaborative infrastructure enables employees to share their talents in ways that both satisfy their need for expression and the organization's imperative for results[33]. As the EVO's population explores their fitness possibilities by changing behaviour, they evolve faster than a population that is not. This is because learning and evolution together are more effective than either alone. It is important to note that by design, problem

tasks for learning in an EVO are selected by the population itself as members go about their work.

One of the key competitive advantages of the start-up organization which the EVO seeks to capture and leverage is its creative nature. Fritz[66] correlates creativity and learning with structure. Bereiter and Scardamalia[67] provide additional insight into how the EVO can promote creativity. The EVO endeavors to create a second-order environment that will support this everexpanding expertise, replacing the first-order environment that encourages the reduction of everything to routine.

The EVO structures the organization so that employees are forced to solve their own problems. In this way expertise is enhanced and reinvested. Experts can learn to become even more expert as they take bigger risks; when they do succeed, they develop from the experience the kind of knowledge that increases the likelihood of their success. That is they "learn to learn" [68]. Having the talent for making the right decisions is gained through making decisions based on working through many small risks beyond current expertise, and becoming increasingly familiar with the patterns of success. This is the tension between exploration and exploitation[69] which the EVO leverages.

We have said that leadership and strategy are the keys to maintaining this tension. It is critical that the EVO's leaders provide a meaningful vision so that individuals see their work as contributing towards it; Bereiter and Scardamalia[67] quote Henry Adams who said of the stone mason: "he does not say 'I'm carving a stone' but rather 'I'm building a cathedral'". It is strategy that creates this stretch.

The evolutionary organization – a management perspective

As Revans[70] has pointed out, "The pioneer of radical growth is the person able and ready to pose discriminating questions in conditions of ignorance, risk, confusion, and to hold his ground in doing so"; this well describes management's operational role in the EVO. Care must be taken that the risks are not viewed from an inappropriate paradigm; as Revans[71] further reminds us "... even the penny post was seen by the Bench of Bishops to carry the risk of servant girls sending each other indecent letters".

Although largely accepted in formative organizations, "... management by no one" [57] is a big cause for concern in KROs attempting to convert to EVOs. Itami[53] offers evidence that co-ordination effects emerge not so much from small groups of people communicating, but from letting large groups co-ordinate their activities in ways that have not been possible before. He makes the argument that the greatest gains come in the periphery rather than at the centre. Control is a desirable element of a normative organizational phase that we would like to embody in an EVO as long as the EVO was not thereby stabilized in a normative mode. A number of authors have described how management can exercise control in EVO-style organizations[59,72-74].

According to Kotter and Heskett[24] "The single most visible factor that distinguishes major cultural changes that succeed from those that fail is competent leadership at the top". Top management's main role in an EVO is to provide true leadership, look outward, create a general business vision and strategy, and build intellectual capital. The wellspring of real learning lies within the organization through aspiration, imagination and experimentation[75]. Senior management must not set strategy in isolation, but as partners with middle and supervisory operational management. For the EVO, in contrast to the KRO, strategy follows structure [76,77], but human behaviours, structure and strategy must still be balanced equally in a systemic sense. The EVO's strategy is less a rational plan designed in the abstract, so much as an emergent phenomena or "craft strategy". This develops as the EVO learns about shifting conditions as it makes incremental adjustments, based on its limited understanding of the underlying relationships[32]. To make this approach effective, all management must be plugged in to "the new global commons" taking part in charting their future through intuitive thinking and scenario building[58].

The organizational work of Beer[78] demonstrates that senior management does not have to exercise autocratic control. We agree with Fritz[66] that "structure determines behaviour". In an EVO managers think this way and ask themselves "What structure should I adopt to create the results I want to create?". Fritz recommends a structure that helps management bring into being the results

they want. He recommends that managers develop an instinct for what works best; they must focus on outcomes and ask themselves "How do I get the outcomes I want?" The structure must be changed so that the gap between the vision and current reality leads to tension which seeks resolution in results. Old habits of KRO thinking cannot be broken through conflict manipulation, e.g. positive thinking or affirmation. There needs to be a start-up mentality developed so that the necessary tension is created which seeks resolution. Managers must speak like the founders and say "We can achieve these business outcomes".

Senior management must ensure that the EVO contains a core shared assumption that the environment in which it exists is to some extent manageable. That is, as turbulence increases the leaders must increasingly emphasize that some level of successful control is possible. The EVO must also confirm its shared core values by demonstrating that the way for humans to behave is to be collaborative, proactive, innovative problem solvers, with high tolerance for diversity and individualism. This kind of alignment through leadership is capable of actually lifting the EVO's performance ceiling.

EVO planning does not rely on cause-effect modelling, and large social-systems optimization-design approaches, since such methods have had very mixed results for KROs. Many of the assumptions that must be made in these methodologies are unacceptable. In particular, the assumption that the context of the planning problem is unchanging, since in the real business world, unambiguous objectives, firm constraints and fixed relationships are atypical. In other words, there will not be "one best way" for the EVO. Because each decision for an organization such as an EVO is so unique, new planning methods have been called for. This has had huge implications for organizational design under conditions of uncertainty[6,79]. As Bloom[80] says, "One cannot know or plan the future. One must will it. There is no program".

In spite of all the information available and relevant to the EVO, there is still little practical detail on how to go about building one. Leaders may be tempted to start to implement an EVO by trying to manufacture a perceived crisis, or by bringing in consultants every few years to wreak havoc, but this will not create an effective entry point. A few

practical approaches to building the complex EVO have been described. For example, Ulrich and Lake[81] recommend that KROs attempting to become EVO-like organizations learn to use temporary systems effectively, so that they are likely to adopt more flexible arrangements even in routine operations. As this happens, they will become more explicit about social architecture and thereby stand a better chance of being self-renewing. Schein[12] recommends creation of parallel learning systems in which new assumptions are learned and tested. He feels that if some part of the organization can learn an alternate way, and that way can be shown to work, then there will be less anxiety on its general introduction; trial and error in this case creates sense of safety. Meyer[82] recommends careful design and development of multifunctional teams, and changes to the structures that thwart such teams from functioning. Work processes must be re-engineered so that people can focus on value-added time and eliminate non-essential work. It requires a systemic change strategy and cycle time reaction methods and tools. Quinn Mills[76] provides much practical advice; Stack[83] and Stayer[84] give details for unleashing the individual.

In the final section of this article we will describe in practical terms how we have been involved in assisting a very large organization develop from a tradition-bound KRO into an EVO. This example will further illustrate that its not the size of the "vessel" that gives the EVO its characteristic, but how its parts function together and how it is steered.

The evolutionary organization – a new science perspective

For completeness, and because the topic will be unfamiliar to many organizational design practitioners, we examine here the consistency between EVO theory and the organizational theory emerging from what has come to be known as "new science". Given the preceding account of the EVO, the relevance and importance of the following review will become obvious.

Readers interested in a less speculative discussion may wish to pass to the last section of this paper, where practical description of a functioning EVO is presented.

Wheatley[85] has been the principal author to draw attention to the business importance

of ideas drawn from physics. She describes dissipative structures, similar to an EVO, in which disorder can be a source of order, and growth is found in disequilibrium, not in balance. The very richness of the divers elements in a complex system, such as an EVO, allows the system as a whole to undergo spontaneous self-organization[69]; such a structure is never resting.

Although it has clear boundaries, the selforganizing system merges with its environment and its history is tied to this environment. Self-organizing systems are adaptive, in that they do not just passively respond to events the way a rock might roll around in an earthquake. They actively try to turn whatever happens to their advantage. Chaos by itself does not explain the structure, the coherence, and the self-organizing cohesiveness of complex systems. Even the most chaotic of systems always stay within certain boundaries called strange attractors[86]. In this way there is order without predictability. They have all somehow acquired the ability to bring order and chaos into a special kind of balance. This balance point is called the edge of chaos - this is where the components of the system never quite lock into place, and yet never dissolve into turbulence either. The edge of chaos is where new ideas and innovative genotypes are in tension with the status quo, and where the most entrenched old guard will eventually be overthrown. Complex systems are constantly revising and rearranging their building blocks as they gain experience. Similarly the EVO exists at the balance point between an organization's formative and normative phases, riding the turbulent ebb and flow between the organization's exploratory and exploitive intentions. At some deep level, these processes of learning, evolution and adaptation are the same.

Control in chaotic systems is exercised through dynamic connectedness[87]. Mitroff and Linstone[88] advance the idea that the organization exists on many levels and one of them is the area for diffusion of innovation – independent of hierarchy, etc. – creating fields of meaning for action. Wheatley[85] believes that "... what leaders are called upon to do in a chaotic world is shape the organization through concepts, not through elaborate rules and structures". The organizational meaning that is articulated is a strange attractor, and individuals make meaning to produce order from chaos. She adds "... when meaning is in

place in an organization, employees can be trusted to move freely, drawn in many directions by their energy and creativity. There is no need to insist, through regimentation or supervision, that any two individuals act in precisely the same way. We know they will be affected and shaped by the attractor, their behaviour never going out of bounds. We trust that they will heed the call of the attractor and stay within its basin. We believe that little else is required except the cohering presence of a purpose, which gives people the capacity for self-reference". According to Wheatley[85], some of the best ways to create continuity are through the use of forces we cannot see, called "fields". Many scientists now work with the concept of fields - invisible forces that structure space or behaviour. Boisot[32] holds similar views, seeing turbulence as a source of new order. To ride this turbulence and absorb uncertainty the organization needs what Boisot calls an "organizing gestalt" which functions much like a field. The EVO's visionary core is developed at its centre to provide such fields[89,90].

If vision is a field, "conceptual controls" are the way to create it, says Robert Haas, CEO of Levi Strauss & Co.[91]. These controls are the business ideas which act as fields to give form to work and structure what is happening at the level of the individual. Space is never empty; the EVO seeks to fill business space with coherent messages. Otherwise, dissonant messages will creep in as employees bump into conflicting fields, and it all becomes a jumble. However, by allowing autonomy at the local level, letting individuals or units be directed in their decisions by guideposts for organizational self-reference, the EVO achieves coherence and continuity.

Capra[92], based on studies of self-organizing systems and self-renewal, sees the requirement for development of more ingenious new forms of social organization.

According to Capra, an organization like an EVO will display systemic wisdom in its use of small-scale, decentralized, responsive units, designed for increased self-sufficiency and maximum flexibility. It should not be inferred that the organization's overall size must be small, although all things being equal, a small organization clearly has more opportunity to be agile. Rather, the organization must change its structure to feature such small-scale connected elements.

Based on similar studies, Weik[93] recommends that "... it is only through action and implementation that we create the environment ... when we plan we aren't responding to the environment, we are creating it through our intentions ... strategies should be just-intime, supported by investment in general knowledge, a large skill repertoire, the ability to quick study, trust in intuition, sophistication in cutting losses". This attitude is consistent with EVO philosophy.

Kelly[51] appeals to biological experience to assemble successfully a truly complex system, such as a competitive commercial EVO. He sees benefits in the adaptable, evolving, boundless, novel, inefficient, uncontrollable, unpredictable "swarm model". He concludes that "off-balance" is itself balance, remaining poised in the act of collapsing. His generic recipe for building complexity is to do simple things first, learning to do them flawlessly, then adding new layers of activity without changing the simple things. Then make the new layers flawless, repeat and repeat again. Complexity must be grown from simple systems that already work. There is no way to tell in advance exactly what a complex system will look like - such a system must be set up and run to find out.

In the next section, we ourselves come to grips with the nuts and bolts of putting together an EVO.

A practical experience in building an evolutionary organization

Our case study on fashioning an EVO is based on an unikely example. In 1990, when work commenced, our study candidate was a large (over 30,000 employees), traditional, highly successful, diversified bank with its hierarchical structures, controls and rules-driven culture. At that time, some of the bank's business could indeed be characterized as late-life KRO. We will show that such an organization, despite its bulk, can successfully turn around when it detects looming icebergs and learn to sail even more successfully in new ways.

The Canadian Imperial Bank of Commerce (CIBC) had always been "the bank that service built", but the new vision it articulated in the early 1990s of becoming a customer-obsessed company, driven by the customer, close to the customer, and with ever-strengthening relationships with the

customers, went far beyond tradition. Donald Fullerton, the bank's chairman at that time, is quoted[94] as having announced his intention to "... relentlessly and unceasingly push toward achieving a performance driven culture".

A concept which captures the spirit of CIBC's vision is "individuals going the extra mile". CIBC believed that when such discretionary effort became so ingrained that it was commonplace, CIBC would truly be a customer-obsessed company. To assist in realizing this vision the bank adopted a new approach to its business, based on the well-known "inverted pyramid". This in turn demanded new mechanisms for operationalizing the strategy. Al Flood, Fullerton's successor and CIBC's current chairman said, "We really are moving from an organization that is the traditional hierarchy to one that is driven by vision and values".

We have commented earlier on the need for management to exercise leadership; for creation of a meaningful vision and strategy so that employees can see that they are making a contribution. We have also stressed the need for management to emphasize that the business environment is manageable, and control in the face of complex change is possible. CIBC's management addressed these various concerns through its in-house communications, including face-to-face executiveemployee "bear pits". In addition the bank's executives underlined their dedication and support for this effort through special strategic direction issues of their in-house journal[95,96]. These issues set out and explored statements of CIBC's new goal, vision and key performance drivers for "Winning customer loyalty through service excellence".

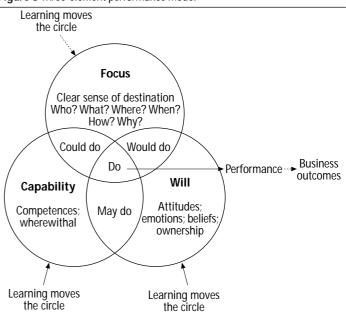
The learning organization concept appeared to offer the most promise as a blueprint for the kind of organizational journey CIBC was determined to undertake. However, from the beginning it was realized that strong emphasis initially on learning would be counter-productive in an organization struggling to redesign its rule-based environment, and where highest priority was being placed on becoming "customer obsessed". Rather, the culture needed to become one that was "... about people learning to adapt and change as a result of intense competition" (our italics) [97]. In addressing the Canadian Payments Association, Al Flood said "The point here is not to have the organization force

employees to learn, but to create a context in which they will want to learn" [98].

CIBC's approach conforms with Revan's conditions for successful development of an autonomous learning system[99] such as the EVO, where the organization's most precious asset is "... its capability to build upon its lived experience, to learn from its challenges and to turn in a better performance by inviting all and sundry to work out for themselves what that performance ought to be". One of us (Saint-Onge), the vice-president responsible for CIBC's leadership development, commenting on CIBC's early EVO work, said, "We never discuss 'learning organizations' at the bank, but talk about enhancing organizational capability" [100]. In this spirit, the simple, systemic, three-element performance model reproduced in Figure 3 was introduced. This model had been used by one of us (Smith) previously; and details of the model and examples of its use are given elsewhere [8,101]. The way the model's three elements of performance (focus, will and capability) drove CIBC's learning efforts has also been presented on many occasions [100, 102].

The simplicity and power of the performance model ensured that it would become widely distributed across the bank and would be rapidly adopted at all levels. It paved the way for the introduction of an EVO approach by emphasizing the fundamentals of excellent performance in pursuit of business outcomes, e.g. activities and tools related to customer service. Although it identified the necessary

Figure 3 Three-element performance model



concurrent learning it also helped deemphasize it by making it more transparent at a practical level; that is learning content and processes were designed, but learning was "by doing". We previously quoted Fritz[66] that "structure determines behaviour". In developing an EVO the designers must ponder this statement, and ask themselves "What structure should we adopt to create the results we want to create?" For example, at CIBC this meant "learning by serving". CIBC had been moving along a path of least resistance, but a change in structure changed that path inspite of the company's size.

In support of the "inverted pyramid" strategy people management was early identified as one of the bank's key performance drivers[95]. The goal was to give employees the support, direction and skills needed to provide customers with the best possible service. This involved changing the traditional roles of employees, managers and the HR function to reflect the new approach. Employees were to asked to take responsibility for their performance, the service they delivered and the development of their own skills and careers. Managers would be less controlling and would focus on helping employees in their new role, and on removing barriers. HR would evolve from hands-on management to developing and delivering the necessary tools.

The critical impact that management mindsets would have on the successful introduction of CIBC's new strategy including people management, and the development of an EVO, was realized from the beginning. It was also understood that having highly skilled managers in periods when new beliefs and strategies were being introduced could not be overvalued[40]. However, consistent with the concept of the EVO, such managers did not need to be superhuman; rather they needed to understand what was expected of them and to have the skills to behave as required.

Structuring learning for the EVO was based on four key premisses:

- (1) The approach must be systemic.
- (2) The influence of management was so critical that their needs must be addressed first.
- (3) Behaviours and habits must be changed to change thinking and learning, not the other way round.
- (4) The effort must be focused on performance and it must be business "outcomes" driven.

A major consideration for CIBC was where to make a start. The first step was to examine the contribution of traditional training to the bank's capabilities. It quickly became apparent that CIBC had been dedicating significant resources to formal training, and that it was one of the leaders in the banking industry in this regard. Unfortunately it was equally clear that this effort had been ill-focused and had become largely ineffective. It also became clear that any attempt to design a more efficient training strategy would be outdated with respect to CIBC's emerging needs, although training itself would continue to have a key role to play.

One of the first major structural changes involved replacing the training-oriented staff college with a central leadership centre [95] and a distributed national network of seven (since increased to 14) employee development centres[103]. The leadership centre's goal is to enhance the leadership qualities of the bank's managers; a key requirment for a successful EVO. The centre offers programmes and workshops designed to reinforce CIBC's business strategies and contribute to their renewal through management involvement. The development centres help employees across Canada to develop new skills for wining customer loyalty in current and future jobs. These centres utilize selfdirected learning products as well as workshops, self-assessment tools and individual consultations in support of career planning and development.

Concurrently with setting up the above centres, extensive competence modelling was undertaken to identify business outcomes and link them with new roles and competences to achieve them. These models were then applied to career streams and resourcing across 3,500 jobs within the bank. For example, outcomes were defined to ensure that desirable business- and people-management related behaviours would be demonstrated. Based on the three-element performance model described above, a new role of the manager was defined. This role identified those behavioural requirements for managers which were deemed necessary to deliver the desired business outcomes. When consensus for the new role of the manager had been reached, the model provided the means to identify the required core competences, and flesh out a relevant learning framework. A learning curriculum was then designed by the

leadership centre to develop the managerial and leadership behaviours described in the role of the manager.

However, in the spirit of the EVO one of us (Saint-Onge), the vice-president responsible for the leadership centre, has said, "The bank's leadership centre is not about competencies and skills. It's about mindsets. The Centre becomes a place of sharing; a forum for the exchange of information. A place where assumptions are constantly probed and pushed and tested; new ways designed; new strategies formulated" [100]. Saint-Onge also said, "The role of CIBC's Leadership Centre is to provide the organization with systematic practices for the generation and renewal of our capabilities as an organization" [104]. CIBC has now put 3,200 managers through its foundation programme that is based on changing mindsets from "If I give them[my employees] half a chance they'll do something wrong" to "If I give them half a chance they'll do something right" [104]. The result "... demonstrates how huge strides can be made in bottom-line results when the assumptions that shape the business are aligned with the new realities of the business environment" [104].

CIBC has successfully travelled from its traditional hierarchical KRO environment to the "inverted pyramid" in only three-and-ahalf years, and already the bank is considering customer-partnership structures [104]. This has been possible so quickly because, as we noted in our discussion of EVOs, when the basic environment has been properly designed and created, other organizational development approaches [7,11-13] can be introduced and will take hold. CIBC has usually adopted a "middle up-down" approach; first targeting a middle-management segment in a strategically important non-mainstream part of the company. These managers then influence their supervisors and their subordinates. Now that the EVO effort has matured, the accent is more specifically placed on learning. For example, Al Flood, CIBC's current chairman, now talks openly about CIBC as a learning organization[105], and learn-to-learn skills[106] and traditional action learning[107] form part of the curriculum.

The bank has also undergone large-scale re-structuring to provide a more decentralized organization, and within some of its business units self-directed teams have been introduced [108,109]. Introduction of these

advanced EVO approaches encouraged a more entrepreneurial atmosphere, and was consistent with recommendations to try to enter and maintain the organization within the normative-formative zone.

With regard to ensuring good communications and dialogue, CIBC operates local employee forums on a regular basis involving employees and their managers. Cross-company open forums have been conducted each year since 1989 to track such questions as "Is CIBC's strategy getting through?" and "Can employment experience be improved?". Compared to 1992 and 1993, the latest survey[110] shows that employees maintain a positive outlook despite all the turbulence going on within the bank. From the perspective of the three-element performance model discussed earlier, the overall results indicate that CIBC has done an excellent job with respect to focus and capability, but that there is still some distance to go around "will", where concern for how work gets done and job security need improvement.

One of the most recent examples of how far CIBC has travelled from its KRO normative days towards an EVO philosophy can be cited as follows:

- During the last year the bank piloted a completely new approach to banking, which entailed major reorganization of its people and facilities. This is a fine example of EVO philosophy where entirely new and revolutionary ideas not only gain an audience but are supported and implemented in the face of the prevailing mindset;
- The principals in this effort have all since been interviewed individually to ascertain their learnings with respect to how the project went, and how improvements could be made in future roll-outs and similar large-scale projects. The results of these interviews have been compiled in a report for debriefing and are being included in future offerings at the leadership centre. The degree of openness, trust and courage that this entails would have been unthinkable at CIBC five years ago.

That CIBC is not a perfect example of the EVO in action, or perhaps ever will be, does not vitiate the lessons to be drawn from the bank's successful efforts to-date. If an organizational "vessel" of this size and tradition can apply EVO principles and turn aside from the competitive icebergs which loomed around it, then other KROs can do the same.

In summary

In this paper we have examined evidence from many sources to support our contention that in times of complex change, the critical step for organizational effectiveness, and ultimately for organizational survival, is to deal with managers' mindsets. Furthermore, we expanded on the two simple notions on which we have based our EVO approach: first, that the best way to deal with mindsets is to keep them from hardening; second, that by changing activities and tools we can change habits of thinking and learning.

We explained how the EVO can flourish continuously in the region of disequilibrium between an organization's formative and normative operating stages. We indicated how new ideas and innovative genotypes are forever being generated so that minds have no opportunity to become set. We further showed how the EVO is structured to ensure disequilibrium by being specifically designed to promote creativity, learning and responsiveness to its environment. We emphasized that the judicious exercise of leadership and strategy are critical in ensuring that the balance point does not slip too far into the highrisk formative mode or the diehard normative mode.

We then reviewed and discussed literature relevant to the EVO and its practical development. We described various systemic initiatives designed to renew mindsets and confer high potential for company competitiveness and longevity. We showed that these initiatives are capable of incremental implementation and are founded on familiar practical behavioural enablers.

The case study we cited exemplified many of the initiatives that we associated with an EVO in this article. Furthermore, the case showed that large organizational size is not detrimental to successful introduction of an EVO approach – that a big ship can be successfully steered through dangerous seas.

Unfortunately, the attitude of the Canadian Imperial Bank of Commerce is atypical of KROs in general, large or small. However, the authors hope that CIBC's success story, and the theoretical discussions in the preceding sections, will encourage others to undertake the EVO make-over, and to avoid a *Titanic* fate.

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