

The new logistics management: transformation through organizational learning

Stephen A.W. Drew and Peter A.C. Smith

The benefits to be derived from a greater appreciation of the potential for change proofing through the learning organization

Introduction

The benefits of enterprise-wide logistics management have been widely promoted with often-cited examples such as Wal-Mart and Benetton. Logistics can indeed be a true core competence, strategically positioning the organization for market success and a source of long-run competitive advantage[1]. Integrated logistics management and changing customer needs lead naturally to effective business process redesign, elimination of traditional barriers and a total supply chain viewpoint. However, new approaches to logistics management are best built on a strong and flexible foundation. No redesign should be launched without proper prior attention to both the organizational and technical contexts.

Logistics management is too frequently considered only as an afterthought to top level strategy formation. Many criticisms have been made of traditional planning and its inability to ensure that important functions such as logistics acquire a strategic focus. For instance, Hamel and Prahalad[2] report that senior management spend less than 3 per cent of their time concentrating on building a corporate perspective of the future. Without such creative organizational foresight, flexible and successful enterprise-wide logistical management may be serendipitous, or merely wishful thinking. The same authors also emphasize that building business foresight is not so much about visioning as about exploring and learning. New and imaginative directions must build on well developed knowledge and understanding of forces driving technological, demographic, regulatory, life-style and market change. Techniques such as "supply chain visioning"[3] are steps in the right direction but, in our opinion, may not be sufficient to help managers address the complexities in which most businesses operate. An attractive approach to promoting strategic logistics management is to combine traditional operations planning with an orientation towards organizational learning. Acquiring characteristics of the learning

organization[4] helps managers develop systems thinking, information sharing, teamwork and leveraging of the knowledge base. A more strategic and proactive orientation towards change and integration can result, as demonstrated by firms such as IKEA.

The learning organization

The concept of the learning organization has been with us now for some time since work by Revans[5], Argyris and Schon[6]. Recently, Senge[4] and others have captured the popular imagination and developed tools to aid systems thinking. The path to organizational learning has been gradual and not always smooth. Recession and an obsession with restructuring, downsizing and process improvement have slowed or stopped many learning programmes in their tracks. Nevertheless, knowledge about successful learning practices is growing and many firms have made considerable progress in achieving change through learning[7].

In this article, we suggest that logistics managers and other change agents can often help their firms become more flexible by adopting notions of the learning organization within a framework of "change proofing". This means preparing an organization for necessary transformation by developing the ability to recognize and respond to early signals of change or unanticipated opportunities.

History shows that the consequences of failing to recognize and interpret harbingers of change can be devastating. Handy[8] describes how the ancient Peruvian Indians were unable to "see" the sails of the invading Spanish fleet, and dismissed them as mirages. Companies large and small, in good times and bad, seem to fall victim to the same myopia. US automobile manufacturers, blinkered to Pacific-Rim competitors, failed to update product lines and core business processes

in time to prevent major loss of market share. New competition from electronic publishing and databases caused CCH (Commerce Clearing House) suddenly to lose \$82m in 1992, after years of superior profits and complacency[9]. Compaq computer is reported to have forgone between \$500m and \$1bn in 1994 sales because its best-selling laptop and desktop machines were not available where and when needed[10].

Change proofing is not a means of resisting or avoiding change, but a process for becoming more flexible and responsive in order to cope with it. To help identify and assess these critical factors for change proofing, a “change audit” is recommended. This includes an audit of organizational learning processes and their impact on strategic focus, motivation and core capabilities, including logistics.

Supply chain management has been described as “an integrative process used to create and sustain competitive advantage based on the delivery to customers of basic and *unexpected services*” [11]. The ability to excite and delight customers as well as to anticipate unarticulated and unserved needs requires true business foresight, as emphasized by Hamel and Prahalad[2]. This is not the sole realm of corporate strategists or marketing specialists. Logistics specialists can help exploit supply chain management as a powerful source of future value-creation. For instance, the emerging environmental clean-up and protection industry is leading to new opportunities for innovation in production and distribution processes – which logistics managers are well placed to help develop and exploit.

Organizational change and learning

Learning is conducive to successful organizational change. Research studies demonstrate that strongly-held “mental models” – or customary ways of interpreting the world – can be major barriers to strategic change. Organizational learning has helped firms overcome such barriers, survive and grow in industries as diverse as railroads, energy and publishing[12]. A distinction has been made[4,6] between learning related to evolutionary change, where the organization adapts slowly (single-loop or adaptive learning), and learning related to revolutionary change where the organization is transformed (double-loop or generative learning). Many logistical efforts have been evolutionary, with the slow learning associated with continuous improvement. However, the greatest opportunities may lie in deeper “double-loop learning” and exploiting radical change to develop new mental maps and a truly strategic approach to logistics management. American Airlines’ Sabre reservation system and Baxter Healthcare’s integrated approach to serving the needs of hospital logistics managers are rare examples of the ability to make radical

change through rethinking the role of information technology and the supply chain.

Much can be done to support accelerated “double-loop” learning through action learning[5], scenarios[13] and use of powerful new information technology to support learning communities[14,15]. The goal is to strengthen capabilities for coping with ever-more disruptive and traumatic change. This is the essence of change proofing.

Model

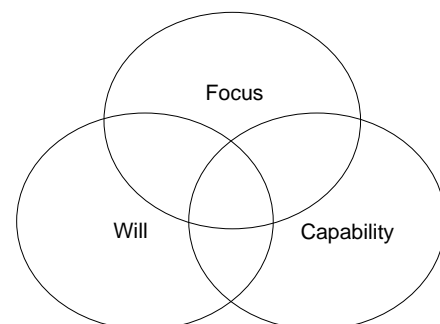
The learning organization is viewed as a metaphor rather than a distinct type of structure, in the spirit of writers such as Pedlar *et al.*[16]. The definition of a learning organization adopted here[17] is a social system whose members have learned conscious communal processes for continually:

- (1) Generating, retaining and leveraging individual and collective learning to improve performance of the organizational system in ways important to all stakeholders.
- (2) Monitoring and improving performance.

According to this definition, coping with surprise and ensuring long-term survival are both important aspects of performance. Organizations may be viewed as learning systems. A useful model consisting of three essential elements – *focus*, *will* and *capability* – has been proposed by Smith[(18, p. 37], and is shown in Figure 1. The three-circle framework draws inspiration from earlier work of Johnson and Johnson[19], Honey and Mumford[20].

Focus, will and capability may be interpreted as: the organization’s knowledge and awareness of potential change, its willingness to address such change, and its abilities to exploit and withstand change, for example through an integration of logistics management with top-level strategic planning. The framework of Figure 1 can be used to diagnose the extent of an organization’s change proofing and guide the development of learning, change,

Figure 1. A learning framework



and supply chain programmes. A state of readiness for change and action is consistent with considerable overlap and congruence of the circles. Change proofing is aimed at bringing focus, will and capability into greater harmony and balance. An elaboration of the three elements follows.

Focus

“Focus” means a clear sense of direction and vision. It arises from the strategic thinking, knowledge and understanding of key decision-making groups and may be symbolized in clearly articulated strategic plans. Focus is rooted in the shared mental maps of the top teams[21] and a shared vision throughout the organization. A high degree of focus requires a well-developed knowledge of the business and an extraordinary understanding of critical players, relationships, events and timings affecting the future. This includes a true understanding of the importance and role of each aspect of the firm and industry supply chains.

However, excessive focus can be dangerous if it leads to rigidity. Concentration on one aspect of strategy can result in fatal blind spots. For instance, supply chain integration may “stop at the factory door”[22]. Large firms may make massive investments in their logistics, but fail to exploit this as a source of competitive advantage in their search for improvements. Other strategic priorities may distort focus, such as obsession with short-term results. “Focus” is embodied in good strategic management practice – but is not restricted to strategic planning alone. It includes foresight[2] organizational readiness for change and alertness to the possibilities of shifting market opportunities.

Will

In the framework of Figure 1, “will” is akin to strength of strategic intent[23], described by Prahalad and Hamel. An inclination to set “stretch” targets[24] and face up to challenges is characteristic of groups and organizations with high levels of will. A “winners” culture, self-confidence and a desire to succeed are important. Will requires emotional commitment and high energy levels, which may be the result of tensions evoked by dissatisfaction with the status quo[25] and “un-freezing”[26]. Will is influenced by strength and styles of leadership throughout the organization, not just at the top.

To move beyond incremental goals an organization may need to benchmark and learn from other firms from quite different industries. This requires an openness to learn new ideas and a willingness to overcome parochial viewpoints. Benchmarking often reveals that others have achieved levels of performance considerably beyond what was thought to be possible and may deliver a “wake-up” call to management and the whole organization[24].

Capability

Capability for change can be related to a limited number of learned competences, unique to the organization at a given time. For instance, there may be unique strengths, or core competences[27] in key production or service delivery technologies. There could be core capabilities[28] stemming from the ability to integrate logistical elements and cross-functional management practices, such as new product development. Managerial capability is a characteristic of the top decision-making teams, the organizational history and culture.

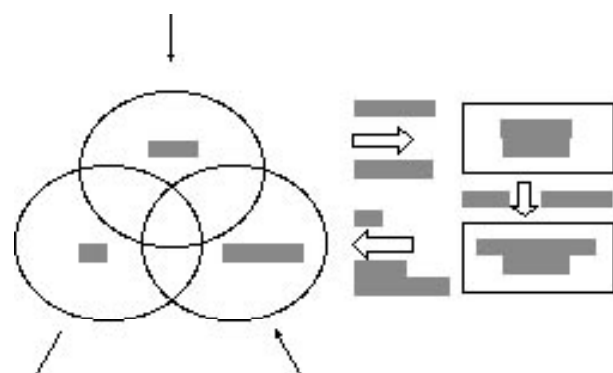
However, the notion of capability extends beyond core competences. Capability also includes the ability and freedom to take action. These are influenced by stakeholder interests and preferences, which may exert critical constraints. The business re-engineering movement for radical process-driven change has proven more difficult to implement in Europe than North America because of differing social perceptions and the influence of trade unions and worker councils. The form of ownership may influence capability. For instance, privatization – a change from public to private ownership – has stimulated organizations such as British Airways and British Telecom to make radical changes in their strategies, organizations, operations and logistics.

Linkages between focus, will and capability

The proposed three-circle framework has the benefit of conceptual simplicity and elegance, and has been found extremely useful as a tool for stimulating discussion of issues related to radical change. It is simple to grasp at an intuitive level, and can be easily linked to the characteristics of a learning organization.

The most favourable set of conditions occurs when focus, will and capability form a self-reinforcing system, with all elements in balance and harmony. As shown in Figure 2, an alignment of the elements leads to successful

Figure 2. Alignment of key elements



strategies, action plans and learning, which further develop organizational capabilities, focus and will. The key is to increase the degree of overlap of the circles by appropriate learning initiatives. Imbalance and lack of congruence can lead to misdirected and wasted efforts. A top management team with a focus inconsistent with unique organizational capabilities and strengths is a recipe for mediocrity and failure. A developed set of capabilities, but little will or focus, can also lead to complacency and loss of market leadership.

Learning and the three-circle framework

Attention to processes of organizational learning can develop focus, will and capability, as well as bringing these into greater alignment. The ability to cope effectively with surprise and radical change can be enhanced as a result. For instance:

- Benchmarking is a process of learning from other firms in the same or related industries. Business process change often requires benchmark studies, as conducted by corporations such as Xerox, Ford and AT&T. Capabilities can be developed by learning new operational methods from others. Will is increased when firms become alerted to gaps in performance and the need to catch up with competitors. Focus is increased when benchmark studies are used to set new directions and strategic plans.
- Action learning as a part of team and executive development programmes can contribute to greater capabilities and will. Those who have experienced the intensity of energy created in learning-by-doing are well placed to mobilize resources and arouse the organization to action when necessary. Action learning in a team promotes greater focus around common efforts.
- Development of an organizational climate which tolerates failures associated with greater learning and experimentation also creates context for enhancing focus, will and capability. Greater openness and trust result, which facilitate teamwork, facing up to reality and coping with the need for change.
- Commitment to support continuous learning by employees and managers helps strengthen core competences and capabilities, as well as developing strategic thinking and focus.
- Creative planning techniques, such as scenarios, visualization and interactive planning[29], can stimulate strategic thinking and faster learning. They can also help develop focus in top management teams and capability to respond to rapid change.

- Information technology clearly has a critical role to play in a learning organization by supporting information capture, knowledge creation and insight sharing. Logistics already has made much progress in application of IT. However, attention needs to be paid to the flexibility of downstream systems, and to the transparency of interfaces with upstream scanning and planning systems. Learning will be greatly facilitated by making knowledge broadly available in a timely manner, but remembering that much important knowledge comes not just from end-customers but also from all stages along the supply chain, and from the environment as a whole.

Many of these types of initiative can be found in organizations engaged in extensive and proactive programmes of “transformation” and change management, and where logistics management is well developed. For instance, GE has undergone massive upheavals since Jack Welch took over as CEO. Business process re-engineering, coupled with benchmarking, has broken down internal boundaries. Action learning principles guide many training programmes, such as those at the Crotonville executive centre. A new climate of empowerment and entrepreneurship is being encouraged[30].

Learning disabilities and barriers to change

Organizations which have a balanced and harmonious combination of will, focus and capability seem to fare best when faced with surprise and rapid change. As an analogy, top players of golf, baseball or cricket seem to perform even better after clearly focusing and carefully establishing a mental “centre”[31]. The skills and capability to play the sport well are obvious prerequisites.

Some examples of imbalances which lead to learning disabilities and barriers to proactive change are the following:

- Excessive will, drive and ambition can lead to dangerously distorted perceptions of reality, or “blindspots”, and behaviour which may ultimately destroy organizational capability. Many over-ambitious market expansion plans have gone astray when the need for attention to operations, R&D and logistics has been forgotten.
- The tremendous resources and logistical capabilities of US steel-makers, automobile companies and even IBM, may have led to a complacency and lack of focus in those companies at critical turning-points in the markets. By contrast, the lack of capabilities and degree of stress in many downsized and restructured corporations of the 1990s may endanger their ability to develop market focus and morale.

- Some organizations and individual leaders, notably in the public sector, may have an extremely good focus and sense of what needs to be done. However, political constraints and the insecurities resulting from funding cutbacks and adverse publicity may destroy their capability to act, and prevent effective organizational learning needed for change.

Learning disabilities and barriers to change are well described by Senge[4], Argyris[32] and others. In many cases, learning disabilities and barriers to change are either synonymous or very closely related. For instance, excessive organizational stress may compromise individual personal mastery, and systems-thinking may be discouraged by a lack of skills and resources for training.

A change audit

A change audit is aimed at diagnosing needs for organizational learning and developing initiatives to enhance organizational capacity for change. The steps are as follows:

- (1) The strategic context is clarified and examined. Information is sought about the relevant environment and situation. For example, if the key concern is with overall corporate strategy, the relevant environment includes all industries and product markets in which the firm competes. In other instances only a particular business within the corporate portfolio may be important. The situation is also revealed by the key issues of concern to top decision-makers: the most important issue may be a single strategic decision, such as a major investment or acquisition, or it may be a concern with broad strategic direction.
- (2) Each element – focus, will and capability – is examined in relation to the context. Tables I, II and III show some of the issues to be considered. Judgement is needed to assess whether any of

Table I. Focus

Symptoms of lack of focus:

Are customers confused by the firm's image in the marketplace?
 Are employees and managers unsure of the firm's strategy?
 Is there an absence of teamwork at top levels?
 Is there an extraordinary degree of political behaviour?

and excessive focus:

Are contingency plans rarely developed?
 Is there evidence of groupthink at top levels?
 Does the firm have a reputation for inflexibility?
 Is the culture intolerant of mavericks?

Table II. Will

Indicators of weakness:

Are corporate goals and objectives below capacity of the firm and potential market growth?
 Do employees receive little reward or recognition for exceptional performance?
 Have more aggressive competitors recently outpaced the firm in key markets?

and of excess:

Does top management have a reputation for setting over-ambitious objectives?
 Is there an obvious imbalance between work and family life?
 Is there a high level of stress and overload?
 Is over-aggressive behaviour tolerated or encouraged?

Table III. Capability

Symptoms of weakness:

Are there no obvious core competences which distinguish the firm from competition?
 Have there been recent major losses of market share?
 Does financial weakness prevent the firm from making necessary investments?
 Do managers complain of a lack of control and inability to get results?

and of strength:

Do competitors regularly benchmark the firm's products or services?
 Does the firm have a reputation for satisfying, and going beyond, customer expectations?
 Are technology and skills "best in class"?

these elements, and contributing factors, is relatively under- or over-developed. Environmental variables should be considered, possibly including the stage of the industry life cycle, intensity of competition and degree of market leadership. For instance, a dominant firm in a mature industry would be expected to demonstrate high levels of capability and focus. However, will, or strategic intent, may be less than that demonstrated by an aggressive firm in an expanding and extremely competitive market.

- (3) The overall balance between focus, will and capability is assessed. Questions which might be examined are typically those shown in Table IV. Trends and organizational strategy may be reviewed to determine if balance is likely to increase or decrease over time. Where contention and conflict are evident, these should be examined closely to understand underlying causes. Pascale[33], Quinn and Cameron[34] have noted that constructive contention can be an extremely

Table IV. *Balance*

Indicators of balance, congruence and harmony.

Does temporary weakness in one element – focus, will or capability – lead to compensatory strengthening in other elements through stabilizing feedback loops (for instance, a weakening in resource capability leading to sharper focus through new strategic thinking and planning)?

Do small setbacks not lead to major disasters and organizational upheaval? Is response to such setbacks quick and effective?

Has the firm a history of achieving strategic goals and objectives, despite unpredictable events and recession?

Are the styles of strategic leadership and control[35] consistent with the nature of the organization and markets?

Are information and reporting systems well-suited to the nature of the firm and its business?

Is learning an integral component of organizational routines, methods and procedures?

positive influence for change. However, poorly managed conflict can also blow an organization apart. The dynamic relationships between changing organizational characteristics and tensions should be given close attention.

- (4) Key learning disabilities and barriers to change are identified, and the strength and significance of these analysed. Internal surveys, interviews and benchmarking may be useful tools.

Change proofing and organizational learning

The change audit will reveal aspects of focus, will and capability which represent barriers to change and learning disabilities. Examination of the balance and dynamic interrelations of these will also throw further light on such barriers, as well as revealing short-, medium- and longer-term priorities. The objective is to prepare and strengthen the organization for the possibility of change across a broad spectrum.

A wide range of initiatives can be launched to accelerate and enhance organizational learning. Table V shows a selection drawn from the literature, together with our view of their potential impacts in strengthening focus, will and capability. A change-proofing strategy may be developed in which a programme of such initiatives aimed at organizational learning is developed and implemented. This change-proofing strategy should provide a fit between organizational capacities, strategic imperatives and environmental uncertainty.

Various dilemmas must be reconciled in such a strategy, for instance: the need to challenge and stimulate a diversity of top-management thinking, and the need to promote team-work and consensus in this group; the need to lower barriers to resistance and obtain co-operation

Table V. *Learning tools and techniques*

Tools	Focus, will, capability
1. Three-circle analysis	F,W,C
2. The five disciplines[1]	F,W,C
3. Action learning[20]	F,W,C
4. Learning styles and processes[25]	F,W,C
5. Action science[17,36]	F,W,C
6. Cultural analysis[19]	W,C
7. Dilemma reconciliation	F
8. Scenarios[18]	F
9. Benchmarking	F,C
10. TQM/re-engineering	F,C

(Note: Selected tools are listed; assessments of major impact in right-hand column are authors' judgement)

among middle managers in conditions of retrenchment and over-work; and the need to spend time on internal competence-strengthening and the necessity of responding rapidly to environmental change. However intractable these dilemmas may appear to be, their resolution will prove easier having conducted the change audit suggested.

IKEA is an organization which has successfully responded to opportunities for growth in international markets. The firm has adopted unique logistical and other strategies for furniture manufacturing, distribution and sale which have encouraged learning and development.

IKEA: change proofing and competitive advantage

IKEA is an international home furnishings group founded in Sweden in 1947 by Ingvar Kamprad. It has operations in over 100 locations and 25 countries, with 1991 annual turnover of \$3.2bn. The first international store was opened in Switzerland in 1973, and the first US store in 1985. Like Wal-Mart it has followed a cautious strategy of entering smaller markets before large urban centres. Paradoxically, many competitors have welcomed the opening of an IKEA store because this has stimulated market demand as a whole. The firm demonstrates considerable focus, will and capability.

Focus

The company is dedicated to a well-defined target market of 25-49-year-old consumers, with above-average income and education. It builds on its Swedish roots in corporate image, store design and products. Merchandise is contemporary in styling with some "clean" traditional items. Products have been designed to pack flat and offer "instant gratification" because they can be taken home directly by the consumer. Pursuit of the global

furnishings market has been single-minded. There has been little diversification until recent moves into hotels.

Will

Corporate culture is built on thrift and traditionally-Scandinavian egalitarian values. From the outset, IKEA was dedicated to making quality and good, simple design available to the masses. A high sense of commitment by management has been built through the experience of coping with rapid growth and overcoming the severe difficulties of retailing in unfamiliar international markets. Foreign markets were tackled only after the company had succeeded in its demanding home base.

Capability

Supply chain management is consistent with IKEA's business foresight. Quality and low cost have been served by a policy of global sourcing and innovative product design. Despite rapid growth, financial management has been conservative. IKEA has a proven capability to make acquisitions, joint ventures and alliances in difficult markets. In 1992 it purchased a competitor and imitator – "STOR" – in the important Southern California market. New ventures in Central European cities such as Budapest, Prague and Warsaw have exploited opportunities presented by radical political and economic change.

IKEA's history shows many instances of an ability to overcome crisis and respond to the opportunities of rapid change. Barriers and challenges which had to be overcome include:

- threatened boycotts of suppliers to IKEA by traditional European competitors in the early days;
- logistics of ordering, inventory and distribution systems over long distances;
- unfamiliarity with non-European cultures and consumers;
- the absence of successful international furniture firms as models for benchmarking (the furniture business is predominantly domestic);
- creation of excess demand (especially in North America) which allowed competitive look-alike firms to take market share.

Innovative business and supply chain strategies, driven by radically rethinking the home furnishings business to match IKEA's business foresight, include:

- developing attractive catalogues for mail order and in-store sales; (catalogues account for about 50 per cent of the promotion budget);
- redesigning furniture into "knock down" kits, in flat boxes, significantly reducing transport and inventory costs;

- developing the firm's own network of suppliers and manufacturers, reducing dependence on traditional, local sources;
- utilizing new materials, for instance replacing teak with oak;
- sophisticated product-market and advertising strategies appealing to young urban consumers in the boom times of the 1980s, and now to "cocooning" homemakers of the 1990s;
- paying attention to making the shopping experience enjoyable by providing attractively-designed store layouts, facilities for children, and restaurants.

A learning orientation is displayed, for instance:

- a willingness to change and adapt traditional approaches. In the north-eastern USA a dual pricing system allows consumers the option of a "full" service, with home delivery, assembly and placement;
- the attention paid to management training and development. IKEA management report that lack of capable people is a far greater barrier to their growth than lack of financing;
- experimentation with smaller (10,000 sq.ft.) stores.

According to Goran Carstedt (CEO of IKEA North America): "The strength of a learning organization is that the more it knows, the faster it learns – and the faster it learns, the more it knows"[36]. IKEA seems to display many of the ideals and practices of a learning organization, and to be able to gauge when proactive or cautious approaches to change management and business and logistical strategy are needed.

Conclusions and recommendations

According to Louis Pasteur: "Fortune favours the prepared mind". Research carried out by Royal Dutch/Shell[13] confirms that companies which have survived for very long periods have consistently picked up on the signals of major change and acted on them before crises developed. Although major environmental threats and business opportunities may be difficult or impossible to forecast, a firm can improve the chances of long-run success and survival by developing a learning mindset and flexible organizational capability.

We have proposed a framework for "change proofing" in this article, which combines various approaches to organizational learning with a "change audit". The change audit builds on an intuitively appealing model of an organization as a social system. The concepts of organizational focus, will and capability, represented in our three-circle model, capture the key elements of more complex theoretical representations. A strengthening of

organizational focus, will and capability, through first conducting a change audit, and then implementing a selective programme of learning initiatives and strategies aimed at “change proofing” is, in our view, an effective means of managing for radical change and surprise.

Recommendations for firms facing an unpredictable and difficult business environment are as follows:

- (1) *Re-engineering, restructuring or downsizing should consider the organizational climate, willingness and preparedness for change.* Any form of major change, whether to a process, a product, or an entire business, stands a greater chance of success if based on an initial assessment of readiness for change[37]. The three-circle model is a richer tool than simple checklists to assess critical success factors and barriers to change. Without a “change audit” results may not be as intended. For instance, a re-engineering project to simplify and streamline a major logistical element may inadvertently reduce organizational flexibility and resilience if activities or resources are removed which indirectly contributed to learning and reflection. In such a case, capability may be enhanced, but focus and will diminished. The net benefit to the organization of a misguided re-engineering project could be nil or negative.
- (2) *Strategic decision making should include logistics and be integrated with organizational learning.* Traditional planning approaches are often mechanistic and separated from logistical concerns and the messy realities of implementation[38]. Strategic plans are constructed in a rational, step-wise sequence of evaluations, including organizational vision, goals, strengths, weaknesses, opportunities, threats and stakeholder interests. We argue that strategies should also be selected for the learning they may provide, and that the planning process should be aligned with organizational development and learning. Such learning may strengthen long-run focus, will and capability. Porter[39] also argues that national competitive advantage in various industries is developed by firms facing up to challenges, and learning how to cope with demanding customers and difficult circumstances. The Italian footwear and apparel industries are cited as examples. These consumers set extremely high fashion standards, and satisfying this home market has led to world-wide success. Integration of strategic decision making with organizational learning is inherent in the philosophy of “Planning as Learning”[13]. Strategic planning can be viewed as a process of double-loop (or generative) learning. The three-circle framework provides a conceptual framework for bridging strategic planning and organizational learning.
- (3) *Adopt innovative strategic management and planning practices.* The change audit suggested here is a different way of assessing organizations from a conventional SWOT analysis or management audit. Hard and soft disciplines of management are required, as well as an understanding of the learning organization. Action learning approaches can be incorporated in strategic planning. New techniques such as scenarios, future mapping, microworlds[4] and planning boards[29] can be explored as means of alerting and energizing top management teams to the possibility of radical change. The three-circle framework may be used to evaluate which areas of strategic planning practice are in need of improvement, and the impacts of different new techniques. For instance, a tendency to “groupthink”, revealed by examination of strategic focus, could lead to use of tools such as dilemma analysis[40] to stimulate new thinking.
- (4) *A “Chief Change Officer” may be needed.* The activities needed for change proofing cut across functional lines and require sponsorship at the highest levels. A number of organizations have created the role of Chief Information Officer (CIO) to involve IT in the highest levels of strategy formation. Similarly the Chief Change Officer (CCO) would bring concerns with change, people development, logistics and strategic learning to the highest levels. The CCO would be responsible for future directed change and corporate transformation. Such an appointment sends out strong messages regarding the importance of change and may increase organizational will and commitment. The CCO would be an extension of the CEO’s role in strategic management. By linking with strategic planning and organizational development activities throughout the firm, he or she would also help increase focus and capability. Indeed, one of the most important responsibilities would be to address the balance and alignment between the three circles in our model. A further responsibility of the CCO would be to oversee strategies for change, and advise where and when radical types of change, such as re-engineering, are needed. Not all business and supply chain processes may need a “clean-slate” approach, and the CCO could help judge what should be kept, and what should be totally redesigned. A change audit, as we have proposed, would aid this task. Roles similar to a CCO have been created in organizations such as Nissan, Chemical Bank and American Express.
- (5) *Use past failures to learn and change. Develop an organizational memory.* “Broken learning cycles”, such as a failure to reflect on, or learn from, experience, are evident in the frequency of projects

which “reinvent the wheel”. All too often the hollow epitaph on a monumental failure – that it was at least “a learning experience” – is far from the truth. Many organizations fail to learn from experience, even at the strategic level. Witness to this is repetition of the consequences of lax lending practices in banking – third world debt in the 1970s, the energy industry in the 1980s, and now commercial real estate and corporate buyouts in the 1990s. However, a balance must be struck between attention to the past and focus on the future. UK Labour party leader Tony Blair has stated “we must respect the past, but not live in it”. Organizations engaged in drastic downsizing and restructuring run the risk of not being able to “live in the future”. The ability to respond quickly to new opportunities, as economic growth resumes, may be endangered because memory of the past – embodied in people, routines and systems – is lost. In such circumstances, attention should be paid to strengthening focus and capabilities by developing a memory of databases and systems which records key strategic decisions, actions and outcomes. Japanese corporations such as Honda maintain such records of new product ideas. The task of memory management could be a responsibility of the CIO or Chief Change Officer.

- (6) *Strengthen learning capabilities in existing managerial practices.* Just as Molière’s character Monsieur Jourdain was surprised to learn he had been talking prose for 40 years without knowing it, many managers may be engaged in organizational learning without their knowledge. For instance, benchmarking, new product development and process improvement, whether successes or failures, can lead to significant learning. Consequently, we suggest that project management of these types of activities be conducted with a view to developing and strengthening will, focus and learning capability. To accomplish this, projects may be structured, not just as managerial tasks, but also as learning experiments. Systems may be put in place to record lessons learned and to disseminate these to the rest of the organization. Information technology, such as groupware and networking, may be used to improve communications and support accelerated, shared, learning. Post-implementation “learning audits” could be performed. Major consulting organizations such as McKinsey and Arthur Andersen have developed innovative information-sharing networks, allowing consultants around the world access to data on current and previous engagements, as well as associated staffing.

In closing, we believe that executives, consultants and management development specialists would all benefit

from a greater appreciation of the potential for change proofing through the learning organization.

References

1. Gunn, T.G., *In the Age of the Real Time Enterprise; Managing for Winning Business Performance through Enterprise Logistics Management*, Oliver Wight Publications Inc., Vermont, VT, 1993.
2. Hamel, G. and Prahalad, C.K., *Competing for the Future*, Harvard Business School Press, Cambridge, MA, 1994.
3. Copacino, W.C., “The ultimate supply chain vision”, *Traffic Management*, Vol. 33 No. 5, 1994, pp. 29-31.
4. Senge, P., *The Fifth Discipline*, Doubleday, New York, NY, 1990.
5. Revans, R.W., *The Origins and Growth of Action Learning*, Chartwell Bratt, London, 1982.
6. Argyris, C. and Schon, D.A., *Organizational Learning: A Theory of Action Perspective*, Addison-Wesley, Reading, MA, 1978.
7. Senge, P., Kleiner, A., Roberts, C., Ross, R. and Smith, B., *The Fifth Discipline Fieldbook*, Doubleday, New York, NY, 1994.
8. Handy, C., *The Age of Unreason*, Harvard Business School Press, Boston, MA, 1990.
9. Labich, K., “Why companies fail”, *Fortune*, Vol. 130 No. 10, 1994, pp. 52-68.
10. Henkoff, R., “Delivering the goods”, *Fortune*, Vol. 130 No. 11, 1994, pp. 64-78.
11. Bonney, J., “Supply chain management: treat it like a product”, *American Shipper*, Vol. 36 No. 2, 1994, pp. 39-43.
12. Barr, P.S., Stimpert, J.L. and Huff, A.S., “Cognitive change, strategic action, and organizational renewal”, *Strategic Management Journal*, Vol. 13, 1992, pp. 15-36.
13. De Geus, A.P., “Planning as learning”, *Harvard Business Review*, Vol. 66 No 2, 1988, pp. 70-74.
14. Kelly, K., *Out of Control*, Addison-Wesley, Reading, MA, 1994.
15. Rheingold, H., *The Virtual Community*, Addison-Wesley, Reading, MA, 1993.
16. Pedler, M., Burgoyne, J. and Boydell, T., *The Learning Company*, McGraw-Hill, London, 1991.
17. Smith, P., *The Learning Organization*, conference presentation, Canadian Institute, Toronto, June 1993.
18. Watkins, K.E. and Marsick, V.J., *Sculpting the Learning Organization*, Jossey Bass, San Francisco, 1993, pp. 35-7.
19. Johnson, D.W. and Johnson, F.P., *Joining Together*, 3rd ed., Prentice-Hall, Englewood Cliffs, NJ, 1987.
20. Honey, P. and Mumford, A., *Capitalizing on Your Learning Opportunities*, Organization Design & Development, King of Prussia, PA, 1989.
21. Huff, A.S., *Mapping Strategic Thought*, Wiley, Chichester, 1990.
22. Ligeti, M., “Corporate reengineering should not stop at the factory door”, *Industrial Engineering*, Vol. 26 No. 8, 1994, pp. 14-16.
23. Hamel, G. and Prahalad, C.K., “Strategic intent”, *Harvard Business Review*, Vol. 67 No. 3, 1989, p. 63.

24. Tully, S., "Why to go for stretch targets", *Fortune*, Vol. 130 No. 10, 1994, pp. 145-58.
25. Beer, M., Eisenstat, R.A. and Spector, B., *The Critical Path to Corporate Renewal*, Harvard Business School Press, Boston, MA, 1990.
26. Lewin, K., *Field Theory in Social Science*, Harper, New York, NY, 1951.
27. Prahalad, C.K. and Hamel, G., "The core competences of the corporation", *Harvard Business Review*, Vol. 68 No. 3, 1990, pp 79-91.
28. Stalk, G., Evans, P. and Shulman, L.E., "Competing on capabilities", *Harvard Business Review*, Vol. 70 No. 2, 1992, pp 57-69.
29. Ackoff, R.L., *Creating the Corporate Future*, Wiley, New York, NY, 1981.
30. Tichy, N.M. and Sherman, S., *Control Your Destiny or Someone Else Will*, Doubleday, New York, NY, 1993.
31. Jensen, P., *The Inside Edge*, Macmillan, Toronto, ONT, 1992.
32. Argyris, C., *Overcoming Organizational Defenses*, Allyn and Bacon, Needham Heights, MA, 1990.
33. Pascale, R., *Managing on the Edge*, Simon & Schuster, New York, NY, 1990.
34. Quinn, R.E. and Cameron, K.S., *Paradox and Transformation*, Ballinger, Cambridge, MA, 1988.
35. Goold, M. and Campbell, A., *Strategies and Styles*, Blackwell, Oxford, 1987.
36. Carstedt, G., "A culture of virtuous learning", *Executive Excellence*, February 1993.
37. Stewart, T.A., "Rate your readiness to change", *Fortune*, Vol. 129 No 3, 1993, pp. 106-10.
38. Mintzberg, H., *The Rise and Fall of Strategic Planning*, The Free Press, New York, NY, 1994.
39. Porter, M.E., *The Competitive Advantage of Nations*, The Free Press, New York, NY, 1990.
40. Hampden-Turner, C., *Creating Corporate Culture*, Addison-Wesley, Reading, MA, 1990.