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This paper attempts to fill an important gap in the integration of strategy and organizational learning through empirical research that examines the process of strategic renewal using a comprehensive framework of organizational learning. The 4I framework of organizational learning is used to examine the phenomenon of strategic renewal at Canada Post Corporation (CPC). The study illustrates the underlying processes that form the tension between exploration and exploitation, demonstrating why strategic renewal is so challenging. Furthermore, it challenges assumptions about organizational learning, suggesting that we need to demystify organizational learning by removing the halo that surrounds it. Copyright © 2003 John Wiley & Sons, Ltd.

ORGANIZATIONAL LEARNING AND STRATEGIC RENEWAL

The field of strategic management has been fertile ground for researchers seeking perspectives on the key considerations in managing the success of the enterprise. One of these, identified by Mintzberg, Ahlstrand, and Lampel (1998), is organizational learning. In this paper we ask: How does organizational learning explain the phenomenon of strategic renewal? We present an empirical study of the process of strategic renewal that addresses three shortcomings of current research on organizational learning and strategic renewal. The first shortcoming is a too-narrow conceptualization of organizational learning as it relates to strategy. Second, organizational learning research has ignored the main undercurrent of strategic renewal—the tension between exploration and

exploitation. The third is a lack of empirical research applying organizational learning theory to strategic renewal. In addressing these shortcomings we seek to contribute to strategy research by delving more deeply into the black box of strategy process.

We apply the organizational learning framework developed by Crossan, Lane, and White (1999) to examine strategic renewal at Canada Post Corporation (CPC). CPC provides an excellent case study because of the significant changes it has undergone as well as its need to understand and respond to a potential move from physical to electronic delivery of mail. CPC's challenges are similar to those faced by many firms undergoing strategic renewal (e.g., Fugifilm, described by Kunii, Smith, and Gross, 1999), particularly those firms adapting to significant technological change (Evans and Wurster, 1997; Useem, 1999).

We begin with a general overview of the organizational learning literature as it applies to strategic renewal and follow with a more in-depth discussion of the organizational learning framework employed. After presenting the study methodology

Key words: strategic renewal; organizational learning; transformation; strategic process; innovation

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we conclude with a discussion of the findings and implications of the research.

ORGANIZATIONAL LEARNING AND STRATEGY

Strategy research has been criticized for its overly analytical orientation, top management bias, lack of attention to action and learning, and neglect of the elements that lead to the creation of strategies (Mintzberg *et al.*, 1998). Organizational learning research, with its focus on process, has the potential to offer insight into these identified shortcomings (Walsh and Huff, 1997). Indeed, as DeGeus (1988) points out, organizational learning may be the only sustainable competitive advantage. However, despite the many literature reviews (Argyris and Schon, 1978, 1996; Crossan *et al.*, 1995; Daft and Huber, 1987; Fiol and Lyles, 1985; Huber, 1991; Levitt and March, 1988; Shrivastava, 1983), organizational learning research has largely remained disconnected from strategy. Attempts to forge a link between strategy and organizational learning have been hindered by shortcomings that fall into one or more of three broad categories.

The first shortcoming is a too-narrow conceptualization of organizational learning. Organizational learning has often been described as an emergent, trial-and-error, even random process (Goold, 1996a, 1996b; Mintzberg, 1996a, 1996b; Pascale, 1996a, 1996b; Rumelt, 1996). Another perspective on organizational learning, drawing heavily on the work of James March (Cohen and Sproull, 1996), sees it as a more rational process within the domain of decision-making and choice. For example, using a computer simulation to examine the impact of organizational learning on entrepreneurship, Lant and Mezias articulate three basic components of a learning model: 'First, organizations have a target level of performance or aspiration level to which they compare their actual performance...Second, performance above or below aspiration level affects the likelihood of observable organizational change...Third, a learning model suggests that the acquisition and processing of information about alternatives takes place in a relatively costly process of search' (Lant and Mezias, 1990: 149). However, the focus on choice and decision-making does not capture the richness of the organizational learning phenomenon found in interpretive systems (Daft and

Weick, 1984), communities of practice (Seely-Brown and Duguid, 1991), dialogue (Isaacs, 1993), and memory (Walsh and Ungson, 1991). This suggests the need for a more in-depth examination of the organizational learning phenomenon.

Lant, Milliken, and Batra conclude that 'organizational learning may be more complex than the trial-and-error process often emphasized in the organizational learning literature' (Lant, Milliken, and Batra, 1992: 603). Delving more deeply into the cognitive processes of organizational learning, Barr, Stimpert and Huff found that the process of strategic renewal at the railroads they studied 'was more complex than the two-tiered models of organization learning (single-loop and double-loop) usually found in the management literature' (Barr, Stimpert and Huff, 1992: 32). They concluded that 'renewal hinges not so much on noticing new conditions, but on being able to link environmental change to corporate strategy and to modify that linkage over time' (1992: 15). Their research suggests the need for a more in-depth model of the organizational learning process to understand how interpretation affects changes in strategy. To limit the view of organizational learning to either an emergent, happenstance, trial-and-error perspective or a more rational choice and decision-making perspective is to restrict what organizational learning has to offer strategy.

The second shortcoming is the failure to address the fundamental tension of strategic renewal—the tension between exploration and exploitation. For example, organizational learning theory has been employed to understand resources and capabilities (Nanda, 1996), tacit knowledge (Nonaka and Takeuchi, 1995; Spender 1996), and the role of memory in organizations (Casey, 1997). These undertakings, though important, do not address the overarching tension created when firms develop new competencies while concurrently exploiting existing ones.

Conflicting results in two studies on strategic renewal serve to elucidate the second shortcoming. The work of Huff, Huff, and Thomas (1992), which uses a simulation methodology to examine the interaction between inertia and stress as it relates to four proposed phases of renewal, stands in contrast to that of Stopford and Baden-Fuller (1994), who examine renewal in 10 firms in four European industries. Whereas Huff *et al.* found a 'bifurcation between firms that stay within one strategic framework for long periods of time and

firms that actively seek major changes in strategy' (Huff *et al.*, 1992: 71), Stopford and Baden-Fuller found that 'all of the firms built or attempted to build all the attributes of corporate entrepreneurship in long drawn out processes over many years, not in a one-shot, single event' (Stopford and Baden-Fuller, 1994: 528). Further, though some firms strived for 'successful metamorphic change', researchers found no evidence of it. Neither study drew heavily on the organizational learning literature to explain the phenomenon of strategic renewal.

Using another simulation, Mezas and Glynn (1993) employed the same learning model as Lant and Mezas (1990) to explore the effectiveness of three corporate renewal strategies: institution, revolution, and evolution. They found that 'units engaging in an institutional strategy did not tend to experience more innovation, in spite of increased resources devoted to search ... Units engaging in a revolutionary strategy, purportedly designed to increase radical innovative change, garnered only transitory increases in the amount of innovation' (Mezas and Glynn, 1993: 94). The findings of Mezas and Glynn, more consistent with those of Stopford and Baden-Fuller, show that the strategic renewal process tends to be a long-drawn-out process. Yet, these studies yield no significant insight into the process of strategic renewal and, more specifically, no clues to why firms—even those that intend to—do not radically innovate.

Organizational learning is seen as a means to develop capabilities that are valued by customers, are difficult to imitate, and hence contribute to competitive advantage. However, organizational learning often remains a 'black box' as researchers presume that positive transformation can and will happen. Yet despite the pervasive view that organizational learning leads to new sources of capability in support of new strategies, there has been no empirical examination of the effects of organizational learning on strategic renewal. Understanding the process of strategic renewal is critical if we are to move beyond the claims that organizational learning may be the only sustainable competitive advantage (DeGeus, 1988).

Research on organizational learning is not without its problems. For example, practitioner-focused, learning organization research has left practitioners and many researchers with a very normative view of organizational learning as an innately positive phenomenon. Notable examples

of this positive orientation are the work of Senge (1990) and the work of Watkins and Marsick (1993), whose six action imperatives typify this positive and prescriptive view of organizational learning. Argyris and Schön describe learning organization research as 'prescriptive, practice-oriented, value-committed, sometimes messianic, and largely uncritical' and they allege that research 'treats the phrase, *learning organization* as a catchword for whatever is front-running Japanese' (Argyris and Schön, 1996: xix). Allowing for the possibility that organizational learning may not be utopian enables us to take a more critical view of organizational learning and helps reveal undiscovered aspects of the process.

Finally, even in cases where organizational learning has been applied to strategic renewal, researchers have stopped short of application and testing. For example, Crossan *et al.* (1999) explicitly address the tension between exploration and exploitation. However, their framework is only loosely tied to the story of Apple Computer, and they present no in-depth empirical examination.

We attempt to address these three shortcomings by presenting an empirical study of the process of strategic renewal using a comprehensive framework of organizational learning. A brief description of the framework follows.

THE 4I ORGANIZATIONAL LEARNING FRAMEWORK

We employ the 4I framework developed by Crossan *et al.* (1999). While the framework addresses the first two shortcomings, in that it is comprehensive and captures the tension between exploration and exploitation, there has been no empirical examination of it. The following provides a brief overview of the 4I framework.

As shown in Table 1, four associated (micro) processes—intuiting, interpreting, integrating, and institutionalizing—serve to link three levels of analysis and define learning within organizations. Intuiting and interpreting occur at the individual level; interpreting and integrating happen at the group level; and integrating and institutionalizing take place at the organizational level. The use of verb forms conveys both the cognitive and behavioral perspectives of learning processes. For example, it is important to consider not only intuition (cognition) but also how that intuition develops

Table 1. Learning/renewal in organizations: four processes through three levels

Level	Process	Inputs/outcomes
Individual	Intuiting	Experiences Images Metaphors
	Interpreting	Language Cognitive map Conversation/dialogue
Group	Integrating	Shared understandings Mutual adjustment Interactive systems
	Institutionalizing	Routines Diagnostic systems Rules and procedures

Crossan, Lane, and White (1999); reproduced by permission of *Academy of Management Review*.

(behavior). Crossan *et al.* (1999: 525) define the learning processes as follows:

Intuiting is the preconscious recognition of the pattern and/or possibilities inherent in a personal stream of experience. This process can affect the intuitive individual's behavior, but it only affects others as they attempt to (inter)act with that individual.

Interpreting is the explaining of an insight, or idea to one's self and to others. This process goes from the preverbal to the verbal and requires the development of language.

Integrating is the process of developing shared understanding amongst individuals and the taking of coordinated action through mutual adjustment. Dialogue and joint action are crucial to the development of shared understanding. This process will initially be ad hoc and informal, but if the coordinated action taking is recurring and significant it will be institutionalized.

Institutionalizing is the process of ensuring that routinized actions occur. Tasks are defined, actions specified and organizational mechanisms put in place to ensure that certain actions occur. Institutionalizing is the process of embedding learning that has occurred by individuals and groups into the institutions of the organization including systems, structures, procedures, and strategy.

Processes at the organization level, especially institutionalization, merit further discussion because of their critical link to strategy. The organizational level is where we find stores of knowledge

and learning in such nonhuman elements as structures, systems, procedures, routines, and strategy. As posited by the design, planning, and positioning schools of strategy noted by Mintzberg *et al.* (1998), analysis at the organization level shows us the importance of aligning these nonhuman elements with the competitive environment.

According to some, the design, positioning, and planning schools of strategy are excessively analytical and neglectful of the origin of strategies (Mintzberg *et al.*, 1998). But their central message—the need for alignment between organizations and environments—remains important. We concur with Hamel and Prahalad (1993) that this alignment is a dynamic process that inevitably stretches resources and capabilities from time to time. As the alignment shifts over time, a firm must be capable of reinterpreting its environment and incorporating its understanding into new products, processes, strategy, and structure.

The 4I framework recognizes that the competitive position of a firm is dynamic not static, with influences working through feedback loops as depicted by the arrows shown in Figure 1. These feedback loops are what create the tension of strategic renewal. Within a constantly changing environment, organizations must manage the tension between institutionalized learning and the processes of intuiting, interpreting, and integrating. The former enables *exploitation*—the efficient production within well-defined and routine parts of the business; the latter enables *exploration*—processes equally important but less tangible and concrete. Crossan *et al.* refer to these as the feed-forward and feedback processes of learning.

As shown as a matrix in Figure 2, if the vertical axis is considered as the input, source, or cause, and the horizontal axis as the output, product, or effect, one can examine how intuition becomes institutionalized (cell 1,4) or, inversely, how institutionalization impacts the development of intuition (cell 4,1). The diagonal of the matrix (cells 1,1; 2,2; 3,3; 4,4) describes the pure processes (intuiting, interpreting, integrating, institutionalizing) previously discussed. The cells in the upper right area comprise the feed-forward learning processes that move from individual to group to organization, while the cells in the lower left area represent feedback—the impact of organization-level learning on individual and group learning. For example, cell (4,3)

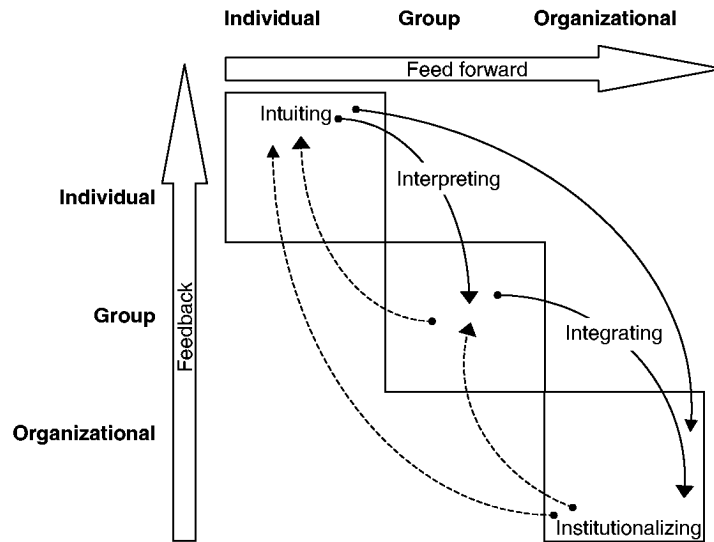


Figure 1. Organizational learning as a dynamic process (Crossan, Lane, and White, 1999; reproduced by permission of *Academy of Management Review*)

		Intuiting	Interpreting	Integrating	Institutionalizing
INPUT	Intuiting	(1,1)	(1,2)	(1,3)	(1,4)
	Interpreting	(2,1)	(2,2)	(2,3)	(2,4)
	Integrating	(3,1)	(3,2)	(3,3)	(3,4)
	Institutionalizing	(4,1)	(4,2)	(4,3)	(4,4)
		OUTPUT			

The table is a 4x4 matrix with 'INPUT' on the vertical axis and 'OUTPUT' on the horizontal axis. The rows and columns are labeled with the four stages: Intuiting, Interpreting, Integrating, and Institutionalizing. A diagonal arrow points from (1,1) to (4,4). A curved arrow labeled 'FEED-FORWARD' points from (1,3) to (2,4). A curved arrow labeled 'FEEDBACK' points from (4,2) to (3,1).

Figure 2. 4I matrix

represents the effect of institutionalized learning on integration.

In summary, the 4I framework: (1) recognizes the tension between assimilating new learning (exploration) and using what has already been learned (exploitation); (2) examines three levels

of learning and the relationship amongst the levels; (3) identifies processes that link the levels; (4) links these processes to strategic renewal; and (5) recognizes that organizational learning involves an interaction between cognition and action. While many frameworks or models have attempted to



explain organizational learning, none incorporates all five areas. We turn now to the methodology used to apply the 4I framework to organizational learning at CPC.

RESEARCH METHODOLOGY

We selected CPC because it represented an interesting and instructive case study of strategic renewal. At the time of the study, CPC had undergone major strategic changes and was in the midst of deciding if, and how, it would move from physical to electronic delivery of mail. CPC needed not only to exploit what it had learned about the physical delivery of mail but also to explore whether and how it should participate in the electronic delivery channel. There existed a strong tension between exploration and exploitation (March, 1991) found in companies undergoing strategic renewal. It was evident, therefore, that we would readily observe the phenomenon of interest at CPC. Before we examine CPC's strategic renewal process through the lens of organizational learning, we look briefly at the changes the firm experienced.

CPC was the single provider of a full postal service for all of Canada. Before October 16, 1981, when Parliament passed an Act making CPC a Crown Corporation, the public postal service had been under the jurisdiction of various Canadian government departments. Each looked after its own functional area and did not coordinate its efforts with other departments. Don Lander, the CEO at the time of the study, described the challenges CPC faced (Lander, 1991: 100).

In moving to manage this enterprise as a business, the new corporation had to face a number of major challenges. It did not have a balance sheet, a process for billing customers or even a bank account of its own. There was no system to accurately record, apply and manage employee time and attendance. Nor were there adequate measures to match labour input with volumes. Some of the key functions required by a corporation, such as payroll, labour relations and data processing services, had been provided to the Post Office by other government departments.

Although the operations had been mechanized in large mail processing plants, there was a complete lack of consistent operating standards, systems and procedures required in a nationwide distribution system to ensure delivery commitments were being met. The capabilities had never been measured.

The promises of delivery were largely based on guesswork, a factor that had contributed to the loss of reputation for reliability. The asset base of our postal system was deteriorating. . . . Perhaps the biggest challenge of all was to change the corporate culture.

The move to become a Crown Corporation provided an opportunity for substantial change to Canada Post's pattern of organizational learning. It meant removing from government departments the responsibility for and control over the various operational areas and providing the newly formed CPC with the opportunity to develop its own infrastructure and identity.

A 10-year metamorphosis followed incorporation. Volume increased by 40 percent, and CPC became a profitable business. Its reliability, measured by on-time deliveries, improved from 85 to 98 percent and it gained a worldwide reputation as a leader in postal technology (Lacey, 1991). Reflecting on the transformation, CPC management described the change as a four-phase process. During the *self-definition* phase the organization had to identify its human, physical, and financial assets, and establish its own administrative infrastructure. The second phase was one of *becoming self-sufficient*. Activities during this period focused on achieving operational efficiencies, bringing the systems and technology up to date, and improving performance. The third phase—*becoming competitive*—saw the development of new products and a marketing system.

At the time of our study CPC was in its fourth phase: *preparing for the future*. As did all industries and sectors, CPC faced a changing environment. Shrinking resources, new forms of competition, and complex environmental changes demanded the development of cooperative and strategic relationships with employees, customers, and suppliers. More importantly, the advent of the 'information highway' meant that more information would travel electronically instead of physically. Given its structural, intellectual, and technological investment in physical delivery of mail, CPC's major challenge was to position itself to survive these shifts without jeopardizing its existing business.

Research design

We chose a case study methodology because the question of interest pertained to the *processes*

of organizational learning and strategic renewal embedded within the *context* of the organization. As Yin (1984) suggests, the case study strategy is appropriate for studies that ask *how* and *why*, research questions that require no control over behavioral events (that is, they are studied within their context) and that concern people who are still accessible and able to recall those events relatively accurately. The single-case design represents a 'revelatory case' (Yin, 1984). The case study format, and specifically the single-case study format, is suited to an in-depth analysis of complex phenomena as well as the inclusion of multiple data sources in terms of respondents per site, documents, and researcher's impressions during interviews and tours. It was important to obtain access to all stakeholder groups. CPC was willing to provide this access and to facilitate the contacts through the executive offices. CPC's 10-year metamorphosis involved not only changes to its strategy but also reassessments of every operation, every system, every unit, and every service within the organization.

Data collection and analysis

Our research approach yielded qualitative data, given the emphasis placed on process and meaning (Denzin and Lincoln, 1994). To ensure data quality we triangulated the modes of evidence-gathering: archival analysis, participant observation of meetings, retrospective interviews, and evidence sources (i.e., multiple respondents). Key informants reviewed the case study report to ensure construct validity. Interview protocols and a structured database for recording information helped to ensure reliability.

The data 'bins' (Miles and Huberman 1994) used to collect details from archival reports and interviews were aggregated and the findings generalized in stages, as follows:

1. Data were collected into bins with source references attached.
2. Data were classified within each bin as to factors, processes, behaviors, and outcomes.
3. Factors, processes, behaviors, and outcomes for each bin were generalized.
4. Generalizations were interpreted independently by researchers and compared.
5. Similarities and exceptions were identified.

6. Observations were generated through analysis of each of the 16 cells of the 4I matrix.

An example of this process is shown in Table 2.

The data were collected in two phases. The first phase involved historical analysis of archival data. The second involved collecting interview data from senior executives, general managers, labor leaders, and franchisee representatives.

We collected archival data in order to understand the events in CPC's history, listen to members of the organization talk about those events, and observe how CPC's interpretation of itself developed over time. The archival data served as an ongoing CPC narrative as well as a means to augment and verify interviewees' retrospective memories. The categories of documents used and the year of their publication are shown in Exhibit 1. Following the case-based research process set out by Miles and Huberman (1994), we analyzed each document and summarized the information on a document protocol (Exhibit 2) that captured: source information; intended audience; date of publication; whether the content focused on strategic and/or operational issues; the nature of specific references, if any, to relationships among issues; performance indicators; the 4Is; and the definition of the business. Any key issues not listed above were also captured. We then compared summaries across all documents and incorporated the information into the project's data bins.

We collected interview data in order to find out how issues evolved over time, to learn where and how ideas were developed and integrated, to understand how the strategic renewal process affected and was affected by the learning which took place, and to see how CPC's interpretation of its future was unfolding. Using the interview protocol shown in Exhibit 3, we obtained information and summarized it according to both the protocol and the 4I matrix. Data were incorporated into the bins and compared to corresponding archival data to develop interpretations. The respondents were selected to represent senior management from all functional areas as well as executive-level management in all divisions. If an interviewee identified another individual who could provide further insight, that person was contacted; thus the initial interview list grew as we gathered information. We expected to conduct interviews among CPC's lower management levels, but we discovered that

Table 2. Stages of data interpretation

Bin	Data	Generalization	Interpretation
Interpretation	<p>Manager #1: 'I don't know to what extent the balance of business between physical and electronic service will change in the future, I haven't seen the numbers for ten years out.'</p> <p>Manager #2: 'If change is incremental, people with futuristic perspectives will see the change as critical, those with historical or current perspectives will just see it as an adjustment.'</p>	<p>Manager #1 believes that understanding is developed at the top and decisions are filtered down.</p> <p>Manager #2 believes that an individual's cognitive map determines their interpretation of ideas and situations.</p>	<p>Factors considered at individual level of interpretation:</p> <ul style="list-style-type: none"> • Individual cognitive schemas • Changes in those schemas • Individual beliefs and understandings

Exhibit 1. Archival document analysis

Type of document (and number)	Publication dates
Speeches and presentations (71) authored by Chairman of the Board; Senior VP, Administration; Senior VP, Operations; Senior VP, Commercial Operations; Corporate Manager, Product Development; President, Messagz; President, CPSML; Corporate Manager; Resource Quality Manager; Other senior management and Standard Corporate Publications	1986–93
Annual reports (15)	1977–94
Corporate plans and capital budget reports (7)	1987–94
Other: operating principles, corporate restructuring reports, sales brochures, media folders, biographies, union agreements, internal reports (34)	1978–93
Newspaper, journal and magazine articles (45)	1985–93

the learning process around issues of strategic renewal had been quite constrained, involving only the most senior positions in the organization. Using archival data as well as interviews from multiple sources helped to reduce retrospective bias. When we noted discrepancies between data sources, we pursued them with respondents. Though we encountered cases of memory lapses, there were very few cases of conflicting perspectives.

With information from both archival data and interviews we assembled the story of strategic renewal at CPC. To determine whether the 4I model helped to understand and explain the renewal process we categorized the story details into the bins of the 4I model. During an interview, if a respondent touched upon an issue particularly relevant to the model, the interviewer would probe further.

Two or three researchers attended the interviews; one administered the inquiries and the other(s) recorded the responses. If sensitivity was not an

issue, a tape recorder was used as well. Within 24 hours of each interview a researcher wrote extensive notes that accurately recorded the questions asked, responses given, and contextual observations made about the site and the respondent's nonverbal communications. Researchers then produced an initial summary that they discussed and verified together. Random checks were conducted on both the archival and interview data to ensure that similar interpretations had been drawn. To maintain consistency, one researcher processed all data. Final summaries and interpretations were discussed jointly to validate the findings.

FINDINGS

We summarized the data according to the 16 cells of the 4I matrix (Figure 2). Points of convergence and divergence were identified from

Exhibit 2. Document protocol

Document #:	Documented By:	
SOURCE DOCUMENT:		
SENDER:		
RECEIVER:		
PUBLICATION DATE:		
	OPERATIONAL ISSUES PAST, PRESENT, FUTURE	STRATEGIC ISSUES PAST, PRESENT, FUTURE
WITHIN STRATEGIC PARADIGM OR CORE COMPETENCE		
OUTSIDE STRATEGIC PARADIGM OR CORE COMPETENCE		
ISSUE INTER-RELATIONSHIP: COUPLING AND DECOUPLING		
PERFORMANCE ASSESSMENT (LEARNING-PERFORMANCE)		
FOUR I'S – PROCESS		
DEFINITION OF THE BUSINESS		
KEY ISSUES IDENTIFIED		



Exhibit 3. Interview protocol

I. INTRODUCTION

Overview of the study

'We are writing a case on the changes Canada Post has undergone in the past decade and the challenges it faces in the future. All interviews and documentation are confidential; nothing is released without approval of Canada Post. We are interested in your individual perspective on these issues.'

II. CONTEXT

*What was your background before coming to Canada Post?
How long have you been with CP, and in what capacities?*

III. HISTORICAL PERSPECTIVE (general)

Can you give us your perspective on the changes Canada Post has undergone in the past decade?

IV. FOUR I'S (IN CONTEXT OF OPERATIONS, RETAIL AND EMAIL)

*Whose insight drives the changes?
How are decisions made and action taken?
What are some of the tensions in making these decisions?
How is conflict resolved?
How are the decisions tied into the resource allocation process?
How are the decisions tied into strategy?
How do the investments in systems, structures and assets, facilitate/impece change?*

V. FUTURE

*What are the three major challenges for the future?
What factors will facilitate or impede your ability to deal with these challenges?*

VI. WRAP-UP

Are there other areas that we have not covered that you feel are important?

which interpretations were drawn. The following summarizes the key findings for the four learning processes along the diagonal of the matrix: intuiting, interpreting, integrating, and institutionalizing; as well as the two off-diagonal regions: feed-forward (upper right), and feedback (lower left). Presenting qualitative research is challenging. We adopt Locke's (2001) approach of alternating between 'telling' and 'showing' by weaving together the theoretical elements and live excerpts from the setting.

Intuiting

Since it is not possible to observe preconscious processes, our research methodology focused on the source of intuitive insights and the ways in which these insights were developed and shared. Our findings support our decision to distinguish between entrepreneurial intuition—which derives from the ability to see parallel or analogous situations and make novel connections to imagine future possibilities—and expert intuition—which comes from the ability to recognize past patterns



(Behling and Eckel, 1991; Crossan *et al.*, 1999). Every person interviewed attributed entrepreneurial-style intuitive insights to one key individual. This individual was the first to envision mail operations that used electronic switching systems to enable inter-machine communication—an important strategic step on the path from physical to electronic delivery of mail. Contrary to expectations, respondents did not identify the CEO as the primary source of this type of intuitive insight. He was, however, credited as the primary source of expert intuition. Respondents consistently labeled the entrepreneurial individual as ‘visionary’ and the expert as ‘operationally focused’ with a ‘hands-on’ approach, as the following widely cited story illustrates.

When the newly appointed CEO arrived at CPC, he requested the operational results from the previous day, only to find that results were compiled quarterly. Because of his experience and expertise in the auto industry, in which operations tracking was standard practice, the CEO sensed that it would be possible to similarly monitor postal operations. Through his leadership CPC invested millions of dollars in information systems to link and oversee its operations. A National Control Center (NCC) and several District Control Centers (DCCs) were soon operating 24 hours a day. With neither a precedent nor a means to justify the investment, the CEO maintained a strong belief, based on his experience, that these systems were both important and possible.

In other instances, the originator of the intuitive insight was not so clearly apparent. For example, respondents could not determine who first thought of franchising CPC’s postal outlets, an idea that significantly changed the organization’s operations and scope.

Interpreting

To examine how individuals interpret insights or ideas—how they explained insights to both themselves and others—we looked at the way respondents talked about CPC’s operations and strategic direction, noting whether their accounts diverged or matched. When asked about the source of new interpretations to guide the renewal process, respondents consistently gave credit to top management. Senior management stated that workers did not want to manage the company and so were not given the opportunity to plan or make

decisions. For example, one director stated that, since the operations were so complex, senior managers simply wanted to be told what to do. Middle management echoed this opinion, expressing the belief that understanding developed at the top and decisions filtered down. One regional manager commented that he did not know the extent of future changes to the balance between physical and electronic service, as he had not yet seen senior management’s projections. His interpretation of how the business would change was based on senior management’s directives, not his own opinions, knowledge, and experience. The management executive committee communicated strategy, vision, and operational implications through a presentation on operational principles given to senior managers. The presentation spelled out acceptable behavior as well as changes in systems, standards, measurement, and monitoring.

Organizations can change interpretations by changing individuals. The CEO, as we noted, arrived with many new perspectives and management concepts from the auto industry. Indeed whole groups of people—and new interpretations—were imported, for example, into the marketing and engineering departments. When senior management contemplated a system of retail franchise outlets and lacked internal expertise, they brought in a new general manager of operations—one with retail experience. His mandate was to change CPC’s focus from the management of labor and physical assets to the management of relationships. New people bring new perspectives and many of CPC’s new perspectives came from nongovernment organizations. These changes helped the organization break from tradition, in terms of self-image and modes of operation. From a 4I perspective, such diversity in interpretations presented a significant challenge to integration. Executives and senior managers were often changed to achieve a shared understanding, particularly since not everyone was fully committed to the new operating principles. The CEO believed in centralized control and strong leadership, while the corporate manager of labor relations preferred consensus building through education. One senior executive compared the organization to cells continually splitting and joining.

In order to initiate new thinking among existing employees, programs that fostered new interpretations were put in place. For example, one

CPC division launched Feet-in-the-Street, an experiential learning program designed to let inside postal workers experience dealing with clients by working in the sales area for a day. The inside workers gained awareness of competitive pressures, client needs, and the importance of their own work. An example of experimental learning was PARADIGM, CPC's innovative prototype of the postal service of the future, through which individuals had the opportunity to try out possibilities, unencumbered by existing systems and procedures.

External stakeholders were encouraged to develop new interpretations about CPC through the Speak-Up program. One respondent highlighted the importance of these new external interpretations: 'Slowly but surely, Canada Post Corporation's message is getting out to its customers. It is particularly gratifying when some of CPC's toughest critics, including the past chairman of the Canada Direct Marketing Association, an association of some of the postal service's largest customers, publicly acknowledges the progress made by the corporation in delivering reliable, accessible and affordable service.' This new interpretation had to be presented consistently and repetitively to external stakeholders.

Overall, the changing interpretation brought about by management turnover provided CPC with a quick infusion of new insights and ways of thinking about the business. A top-down orientation to learning provided an efficient way to change behaviors throughout the organization, as did processes of experiential and experimental learning. However, the interviews revealed that although many individuals had changed their behavior to comply with edicts from the top, many had not changed their thinking, suggesting that CPC's state of learning was more fragile than it appeared.

Integrating

Much of the organizational learning literature assumes that the integration of views should be an open and participative process (Senge, 1990). At CPC, however, integration was often tightly managed, resulting in integration of behavior despite disjunctive beliefs. For example, one executive would not allow union conflicts to impact management initiatives and decisions. Refusal to integrate or even consider the union's perspective caused ongoing grief and dysfunction among management, the union, and employees. Hence, unionized

employees had very little voice in the renewal process. It was apparent that the extent of one's power and authority determined one's influence over the integration process. Other influences, such as the threat of bankruptcy and closure, would mitigate rebellious behavior. This message was clear in one respondent's particularly poignant remarks: 'All of us, whether we are staff or line people, in operations or in a support service, need to know more about our basic business of moving mail. That's what Canada Post is all about, and if anyone finds that this is too dull a subject to take an interest in, then maybe he or she should look for opportunities in another line of business.' In many cases, disbelief was suspended until such time as the outcomes would prove the legitimacy of the change. The director of research and development believed that some of the conflict originated with differences between functional groups as well as between individual views, supporting the argument that individual interpretations come from personality as well as experience.

As expected, the focus of integration varied with the organization level and functions involved. Within the executive level, integration focused on differing visions of the future, definitions of accountability, and decisions around resource allocation. Between the corporate executives and the employees, integration centered on gaining acceptance to executive decisions. Integration of management and workers was a top-down process aided by participative activities and communication programs. Two such initiatives were the development of a vision statement and a set of operating principles. Between the corporation and the unions, integration followed a negotiating process sometimes necessitating arbitration. Overall, the executives integrated their perspectives and developed a common vision for the organization's strategy and operations. Employees were encouraged to accept this common vision and to change their views to conform. Executives negotiated differences between their vision and that of the union to achieve an acceptable common ground.

The integration process was most difficult in those areas requiring a trade-off, particularly in resource allocation. The challenge of moving from corporate-owned to retail-franchised postal outlets lay in developing an integrated and shared understanding of how to proceed. Failure to integrate

or agree on whether and how to make the transition could have resulted in the status quo. Instead, CPC chose a route that minimized conflict: it let the customer decide. By situating franchised retail outlets away from existing corporate outlets and having the franchisee undertake the investment, CPC avoided tough resource allocation decisions. When it became evident that the customer, the ultimate arbiter, preferred the retail outlets, integration followed. At no point was a contentious, either/or choice necessary.

CPC followed a similar route with the development of electronic and hybrid products. It set up the business unit 'Messagz' as a separate function so it would not threaten the existing physical mail function. It appeared that integration was achieved through decoupling potentially conflicting issues. The decision, if contentious, could be separated from the changes, allowing for experimental learning that would yield new data and help drive change within the interpretation and integration processes. As one executive pointed out, 'disbelievers were chipped away at until they changed their mind or left the organization.'

Overall, CPC had a high level of integration around operational issues, but a high degree of diversity around strategic issues, particularly among stakeholder groups. Although the process had been very efficient, CPC did face some significant challenges in aligning key stakeholder groups who may have been alienated in the process.

Institutionalizing

CPC had to evolve very quickly from an unreliable, strike-ridden, inefficient, deficit-generating entity into a profitable, competitive, nationwide delivery service of choice. Its institutions—strategy, structure, and systems—needed a massive overhaul in a very short period of time. Throughout the self-definition and self-sufficiency stages, most changes to the systems and structure focused on gaining efficiencies while effectively delivering mail across the nation. CPC implemented the National Mail Condition Reporting System to monitor plant inventories and volumes, and it installed new optical character readers to increase the amount of machinable mail. Transportation systems were changed from rail to highway, reducing in-transit time. Productivity agreements with letter carriers expanded

the service and community mailboxes, increasing carrier efficiency. New products and services such as electronic mail transmission and Admail were introduced. As CPC gained momentum in the becoming-competitive phase, it implemented new technologies that facilitated network control—pattern recognition, routing, and materials handling—to provide seamless service. It improved sortation times with multiple-line optical character readers and letter-sorting machines. Air-routing control systems, surface transportation reporting systems, and trace mail options for Priority Courier products were implemented as well. All of these changes were the result of new ideas about productivity and competitiveness.

When it became a Crown corporation in 1981 CPC had an ideal opportunity to review its institutionalized learning and decide what did and did not fit the newly formed organization. Unfortunately, because CPC lacked the time or, perhaps, because it did not recognize their importance, entirely new systems were neither considered nor implemented. Though it implemented many new initiatives, CPC also retained systems, policies, and procedures from the old organization, in spite of the fact that it wanted a new future. This had far-reaching implications. For example, it was only after several years that the policy requiring supervisors to call absentee workers was abolished; it was thought to undermine CPC's efforts to develop a more trusting relationship between management and labor.

The strategic renewal processes led to changes not only in systems and structures but also in strategies. The old systems of CPC involved all aspects of its value chain functions. The new distribution systems shortened CPC's role in the value chain by outsourcing retail and aggregating customer delivery. Hence, CPC evolved from being a distribution expert to being a network management expert, from implementing control systems to developing a process infrastructure. The new customer orientation drove the need to change core competencies and systems. It remained to be seen if the electronic delivery paradigm would have the same influence.

CPC's strategy entailed a shift from, as some put it, a nationalistic 'deliverer of mail services' to a viable business entity providing a customer-focused, fiscally responsible service. It managed to avoid some difficult resource allocation decisions

by outsourcing certain operations and thus shifting accountability to its partners.

To maintain the momentum of change, CPC gave shape to its view of what a future postal system might look like in a facility called PARADIGM. The R&D department developed PARADIGM to provide a laboratory and testing ground for new ideas in technology, particularly in the areas of sorting and distribution. This experimental mock-up helped stretch the imaginations of employees and management, customers, and suppliers. Possibility became reality when PARADIGM-tested ideas were implemented into existing systems.

Tracking the diagonal

We have discussed each of the 4I quadrants as distinct entities. However, it is important to recognize that in order to be successfully implemented a new idea must traverse through each of these quadrants. In the next section we will discuss the dynamic feed-forward and feedback flows of learning in a general sense, but first we offer the following example to illustrate the connectivity between diagonal quadrants. We track one idea—the senior executive responsible for envisioning and enacting an efficient and effective postal system—through each of the 4Is.

This individual came into the organization with a strong operations focus developed during his work in the automotive industry. His experience indicated that an efficient and effective operation needed standards, systems, and procedures; his intuition suggested this was possible at CPC. As he gained experience at CPC, his intuition began to take form. As language around his interpretation developed he was able to articulate the need to monitor and perfect mail processing and distribution 24-hours a day, nation-wide. He achieved integration through a directive approach in which he developed shared understanding mainly in a compliance mode. Everyone was held accountable. If a problem existed, an explanation was expected from each person whose department had contributed to the problem. The introduction of systems supporting a national control center to capture and monitor daily results represented the institutionalization of his ideas. Improvements in cost, absenteeism, safety, and overtime were achieved. In the next sections we address the feed-forward and feedback processes more generally.

Feed-forward

For intuitions and interpretations to be shared and integrated they need to be articulated in a form and a language that others can access and understand. Visionaries, for example, gain support and momentum for their ideas through the efforts of a champion. A visionary will sometimes pair up with a champion to articulate a vision and persuade others to accept it. Not finding such a partner could prove detrimental. One CPC manager, a self-described 'techie,' was not able to sell his ideas to others and, as a result, watched as problems he could solve went unresolved. To understand something yet be incapable of clearly expressing it or convincing others of its legitimacy is to prevent ideas from becoming realities.

One way to clearly and vividly express ideas is to connect the unfamiliar with the familiar through the use of analogies. The manager mentioned in our discussion of intuiting—the one with keen and intuitive insights about the future of electronic delivery of information—relied heavily on analogies to explain difficult concepts. For example, he compared airplanes with steamships to help individuals understand the shift from physical to electronic delivery of mail. Using graphs depicting the substitution pattern for air travel as it became a more efficient and effective means of ocean passage, he illustrated that neither the magnitude nor timing of the electronic threat was certain.

Having been integrated and accepted, ideas must then be institutionalized in order to impact the future of the organization. Two gateways lie in their path: the decision-makers and the resource allocation process. Maneuvering through these involves successful persuasion. The process of institutionalization is much simpler if the individual bringing the idea forward has power and influence. As previously noted, one executive who dictated changes and expected the institutionalized idea to be successfully realized was in a position to have his expectations met. Champions who lack power over resource allocation must persuade decision-makers of their idea's viability. For example, the visionary of the electronically connected postal system went to great lengths to sell his idea across organizational levels, from local workers to corporate executives. When ideas needed limited approval and quick success to gain overall support, the path of least resistance and

minimal exposure was sought. For example, he recognized that rural post offices would resist franchising. So he started with urban locations and, when management and employees accepted it, he expanded the franchising concept into rural locations.

Feedback

The 4I framework suggests that once learning has been institutionalized it impacts the other learning processes. PARADIGM, the futuristic postal system prototype, aided the interpreting and integrating processes by providing a concrete means to communicate CPC's needs and aspirations to employees, customers, and suppliers. Prior to this proactive move, CPC simply received the same kind of equipment, products, or services demanded by the U.S. postal system. PARADIGM enabled CPC to communicate its vision to suppliers and to work proactively with its customers in developing that vision.

The institutionalization of the National Control Center (NCC) facilitated the integrating process. The NCC and District Control Centers (DCCs) were key vehicles of change in interpretations. They became hubs for the daily accumulation and dissemination of information about operations, and the information they tracked served to concentrate individual attention, energy, and, therefore, interpretation. In an 8:30 meeting each morning, results and business volumes from the previous day were examined, and managers highlighted any areas that had a negative impact on either cost or service. They discussed reasons for missed deliveries (flight delays, bad weather affecting ground transportation, equipment failure, or human error) and remedial actions. Integration occurred by holding everyone accountable for both the problem and the solution.

Another institutionalized program that helped to develop and communicate understanding was Speak-Up, a program designed to encourage managers to communicate, to both internal and external audiences, the ongoing changes at CPC. It also provided an opportunity for managers to become more aware of their own organization as they prepared for speaking engagements and anticipated audience questions. In addition, the CPC Speakers Bureau, which coordinated the program, helped to develop a common language by ensuring consistency in messages.

However, individuals had difficulty interpreting some of what had been institutionalized, including CPC's strategy. The union, having tracked and categorized resource allocations over a number of years, described CPC strategy as 'two steps forward, one step sideways and one step backwards.'

The Employee Suggestion Reward Program rewarded intuiting and interpreting processes and led to ongoing and significant cost savings. On the other hand, the NCC and DCCs, by focusing on existing operational strategies, hindered creativity. The controls were focused on measuring deviation from stated goals (single-loop learning) rather than deviation from environmental demands, (double-loop learning), thus precluding the development of entrepreneurial visions based on customer need.

If CPC wanted thoughts on new issues or services it would make them NCC reporting items. Things that were not on the list were not noticed, tracked, or improved. The NCC served to focus attention on meeting performance standards. Failures were not recognized as learning opportunities and were avoided.

By making the structural change from regional to operational divisions and thus giving prominence to the Operations and Marketing and Sales areas, CPC acknowledged the need for a stronger market focus. It was expected that such a change would bring about a better interpretation of market needs and help to integrate them with operations.

But CPC circumvented its own institutional structure by developing a subsidiary with an independent structure. Canada Post Systems Management Limited (CPSML) was set up to market CPC innovations. Its separate structure, systems, and procedures enabled CPSML to develop and imbed its own learning. In contrast, Messagz, established as a separate division to focus on the electronic business, remained a part of the institutionalized structure of CPC and faced some critical challenges as a result. In particular, its livelihood depended upon competing for resources against the well-established physical delivery side of the business.

Before incorporation, operations resembled independent, balkanized fiefdoms. A lack of communication systems inhibited the integration of activities and operations. After incorporation, operations became centralized and functional areas were suddenly forced into interdependence. When the CEO arrived, one of his first priorities was better integration. He achieved this by emphasizing

joint accountability. The DCC and NCC meetings determined which areas were to be involved in the integration and conflict resolution processes.

DISCUSSION

Beyond providing a rich description of organizational learning for strategic renewal, this study presents several important findings. With respect to organizational learning research, the study demonstrates that organizational learning processes are not inherently positive or negative. For example, we noted that the hierarchical and top-down integrating process at CPC entailed a high turnover of senior managers. Organizational learning theory has tended to focus on retaining knowledge and, hence, minimizing employee turnover (Grant and Gnyawali, 1996). Indeed, Snyder and Cummings (1998), in pointing out key learning disabilities, suggest that employee turnover may cause 'amnesia.' As a result, any nonparticipative process that churns managers is not likely to meet a researcher's definition of organizational learning. However, we suggest that the infusion of managers from outside CPC and the consequent change in cognition and behaviors at the individual, group, and organization levels are evidence of organizational learning. We suggest that before judging the effectiveness of learning processes, researchers need to describe how learning occurs. To do this we must demystify organizational learning—remove its halo—and consider whether an organization's context determines its pattern of learning. Although no conclusions can be drawn about the nature of the relationship between organizational learning and performance, the case study presents a strong argument that the organizational learning process at CPC, flawed though it may seem when viewed from a more utopian perspective, was in fact the best process given the context. Future organizational learning research may be more mindful of the potential for different patterns of organizational learning.

We argue that organizational learning research ought to forge a stronger link to strategy and explicitly identify the challenge associated with managing the tension between exploration and exploitation. Failure to do so may be one of the reasons that some research has adopted an overly-positive stance. To simply examine learning at

the task or product level is to overlook the conflicts apparent when we take an organization-level perspective. Activities associated with exploitation, in general, are well articulated and considered logical, having emerged through the processes of exploration—intuiting, interpreting, integrating, and institutionalizing. In contrast, activities associated with exploration gain meaning and become understood as they move through the 4I process. As a result, they often lack a well-established logic and therefore are difficult to support and defend. The tension is generally resolved with a bias towards exploitation, as logic tends to prevail. While researchers have noted that organizations suffer from inertia (see, for example, Barr *et al.*, 1992), the underlying processes that contribute to inertia are not well understood. An organizational learning perspective helps to map earlier findings onto a process of strategic renewal.

Although we detected no conscious awareness that CPC was 'managing' the tension, it clearly did so: one individual was able to move intuitive insights through interpretation, integration, and institutionalization without much assistance from others. Through his capability, credibility, and senior position, he was able to develop a sense of shared understanding that he swiftly worked to institutionalize. As a result, exploration thrived in spite of CPC's strong exploitation focus. The establishment of the PARADIGM facility was an excellent example of the success of the exploration process. While this process of organizational learning shared aspects of the sense-making and sense-giving processes described by Gioia and Chittipeddi (1991), who examined strategic change in a large, public university, it differed in the concentrated role played by one individual in the strategic renewal process at CPC. It may be that the highly technical nature associated with a very ambiguous, complex, and uncertain environment, coupled with significant resource allocation decisions, required a particular expertise to both make sense and give sense to the situation. However, the strong parallels between Gioia and Chittipeddi's sense-making and the interpreting process, as well as the parallel between sense-giving and the processes of integrating, institutionalizing, and feedback in general, signal the importance of examining these interpretive and social processes to fully understand the complexity of strategic renewal.

Even when ideas are well formulated in the exploration phase, they must not only compete

with the well-established logic of exploitation; they must also compete with the investment, in both mindsets and assets, associated with exploitation. Consequently, there are often significant obstacles to overcome when exploration challenges exploitation. We saw this in CPC with the move to franchise postal outlets. Two factors—investment in the existing infrastructure and strongly held beliefs that corporate outlets represented the best method—could have overridden the exploration of new distribution methods. However, CPC allowed both to operate simultaneously and used the customer as the final judge. This is consistent with *Fiol's* findings that 'to promote learning as a community, managers must actively encourage the development of different and conflicting views of what is thought to be true, while striving for a shared framing of the issues that is broad enough to encompass those differences' (*Fiol*, 1994: 418).

Although the importance of resource allocation in strategy has been identified by others (*Bower*, 1970; *Burgelman*, 1983), organizational learning provides a different perspective on the problem of managing the exploration/exploitation tension. When the first two challenges (logic and investment in mindsets and assets) are combined with a resource allocation system that favors established logic, track records, and return on investment, exploitation is likely to drive out exploration. CPC was able to buffer itself to some extent by decoupling some decisions (as it did with franchising) and by setting up a different institutional structure (as it did with PARADIGM and CPSML). CPSML, as we noted, was essentially a separate business unit managing its own resource allocation system.

The 4I framework proved a robust tool in helping to understand the process of organizational learning and strategic renewal at CPC. The breadth of the 4I framework provides a structure to incorporate more fine-grained processes that have not been integrated into a common model of learning. There have been several examples of these types of linkages identified in this section, and the opportunity exists to incorporate many more. One of the strengths of the 4I framework is that it enables researchers to categorize learning and thus minimize the positive bias that tends to creep into organizational learning research. One drawback of this more neutral orientation is that it does not directly take into account issues such as power and leadership as they relate to learning. In this study our observations of constrained power and

hierarchical leadership emerged from the description of the 4I process. Regardless of the pattern of organizational learning—whether it sports a halo or horns—the 4I framework obliges the researcher to label the pattern only after having described it.

Future research would benefit from a contrast and comparison of patterns of learning across organizations. A comparative case study approach would be helpful. However, we see no need to limit research to case studies. For example, survey methodology could be employed to measure the 4Is and the feed-forward and feedback processes to observe interorganizational differences associated with strategic renewal.

There are important implications for management arising from this research. Foremost is a cautionary note about accepting organizational learning as inherently or exclusively positive. All organizations learn, for better or worse, and the challenge is to understand the pattern of organizational learning and manage it within its unique context. The 4I framework helps to unearth the underlying learning processes. Further, this research reveals the complex and deep nature of organizational learning processes. Management needs to be cognizant that strategic renewal encompasses a multilevel process that spans from individual intuitive insights through to major resource allocation decisions that institutionalize learning.

In summary, this research has applied a framework of organizational learning to the process of strategic renewal at CPC. The intent is not to generalize the pattern of learning found at CPC to other organizations, but to provide a generalizable framework that can be used to understand organizational learning processes in all organizations. The comprehensive nature of the 4I framework connects facets of organizational learning (such as the levels of learning and their relationship to strategy) that have often remained disconnected. And we have argued that our comprehensive view of how tensions are managed (that is, between the feed-forward and feedback of learning and across the three levels of experience) poses a central challenge for organizational learning. *Leavy* warns that 'there is the danger that the high level of interest in the notion of learning in the strategy field will lead to an uncritical perspective that all learning is virtuous' (*Leavy*, 1998: 464). This study demonstrates that learning may not be entirely virtuous. If researchers and managers continue to focus on

only the perceived positive aspects of organizational learning they will fail to comprehend its full complexity. We conclude that it is necessary to first describe organizational learning and then assess whether the organizational learning process is appropriate for the organization, given its context. Future research may be able to identify different patterns of organizational learning and the contexts in which they are most effective.

POSTSCRIPT

In the 2001 Annual Report the Chairman of CPC states that:

Over the next several years, the Corporation will face a rapid pace of technological innovation. The increased availability and growing acceptance of alternative media is shaping customer demand for greater speed, flexibility and information and will continue to affect Canada Post's product mix. In order to maintain the universal service obligation, a service that is offered at one of the lowest rates in the industrialized world, it is essential to replace the anticipated loss of income from declining mail volumes with revenue from other sources.

The e-economy depends on an efficient and affordable distribution network, integrated supply chain management services and the security of information. The Corporation is moving on every front to become more flexible and innovative. With its Business Transformation program, Canada Post is re-engineering its key business processes to improve effectiveness, efficiency and customer responsiveness. In addition, innovative electronic services are being developed to address the needs of the new economy and to integrate electronic commerce and physical delivery.

I have great confidence in Canada Post's ability to adapt to the significant challenges that lie ahead. With its proven track record of success, the Corporation has charted a course that will ensure it remains a key contributor to Canada's continued prosperity.

CPC's vision statement of 2003 states that: 'Canada Post will be a world leader in providing innovative physical and electronic delivery solutions, creating value for our customers, employees and all Canadians.' These very public statements signal that CPC sees itself as being quite adaptive to change in a world where physical mail volumes will continue to decline and where demand for innovate electronic products will increase. Though

we do not have the benefit of the in-depth insight gained through the methods of the reported study, we observe that these statements reveal a clear sense that electronic delivery solutions play an important role in CPC's strategy.

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