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Revisiting the learning organization: How to create it

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INTRODUCTION

Business leaders are facing whole new set of management challenges. Increasing uncertainty and environmental changes (e.g., global economic stagnation, terrorism, Brexit) must be dealt with to maintain competitive advantage, but the widely known and practiced techniques for leveraging physical and financial resources are no longer sufficient. Rather, innovation, flexibility, responsiveness, and the creative redefinition of markets and opportunities represent the new sources of competitive advantage.

The globalization and the rapid diffusion of information and communications technologies have transformed the economies of the developed world. Citing a 1997 OECD study, *The Economist* pointed out that “more than half of the total GDP in the rich economies is now knowledge-based, including industries such as telecommunications, computers, software, pharmaceuticals, education and entertainment. High tech industries have nearly doubled their share of manufacturing output over the past two decades, to around 25%, and knowledge-intensive services are growing even faster ... knowledge workers ... from brain surgeons to journalists ... account for eight out of ten new jobs.” As noted in a recent *Fortune* article, many of today’s best-performing companies – Amazon, Alphabet, Facebook – use little financial and physical capital for their size. Some, such as Uber and Airbnb, use practically none. As the McKinsey Global Institute recently observed, “The most profitable industries ... are asset-light in terms of physical capital.”

As the focus shifts to the more effective utilization of a firm’s knowledge-based capital, new approaches and techniques have been proposed by strategists and management scholars. Leadership often takes center stage in this discussion, but while more capable leadership at the top – smarter managers – may be necessary, it cannot be a sufficient condition. Competing in an environment of increasing uncertainty

and rapidly changing technologies requires that firms rely on the knowledge, skills, and experience of *all* of their people by creating a *learning organization*.

THE LEARNING ORGANIZATION

A learning organization doesn’t rely on top management to tell it what to do, but challenges the status quo and engages the resources and talents of all of its employees to achieve its organizational goals. In a learning organization, leaders nurture cultures dedicated to excellence and ethical behavior, encourage knowledge-sharing and organizational learning, and every individual is motivated to share his or her talents to make a full contribution to the firm’s goals.

Charles Handy, author of *The Age of Unreason*, *The Age of Paradox*, and *Beyond Certainty*, among others, shared a revealing experience:

“Do you have to work in these conditions?” I asked the lady journalist who was interviewing me for an article in the *Atlanta Journal*. We were sitting in the middle of the huge newsroom. Nearly 100 people were in there, crowded in front of their screens and keyboards, phones cradled uncomfortably under their chins; smoke, clatter, and chatter everywhere. “No, of course not,” she said. “I would do most of it much more efficiently and healthily at home but they (pointing to the two news editors behind their glass windows at the end of the room) need us here. Rather, they don’t trust me to work where they can’t see me!”

At first glance, it would appear that this story epitomizes the lack of empowerment – and trust – granted to the frustrated reporter: “Don’t ask questions, do as you’re told!” However, the implicit message was that learning, information sharing, adaptation, decision-making, and so on, *are not encouraged* within this organization.

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By contrast, today's leading-edge organizations recognize the importance of having *everyone* actively involved in the process of learning and adapting. MIT's Peter Senge, a leading expert on learning organizations, emphasizes that the days when Henry Ford, Alfred Sloan, and Thomas Watson "learned for the organization" are gone:

In an increasingly dynamic, interdependent, and unpredictable world, it is simply no longer possible for anyone to "figure it all out at the top." The old model, "the top thinks and the local acts," must now give way to integrating thinking and acting at all levels. While the challenge is great, so is the potential payoff. "The person who figures out how to harness the collective genius of the people in the organization," according to former Citibank CEO Walter Wriston, "is going to blow the competition away."

In a learning organization, the on-going questioning of an organization's status quo or "modus operandi" is supported and encouraged. Everyone – not just those at the top – is expected to reflect on *what* they are doing, and think about *why* and *how* they are doing it. Although this seems simple enough, it is frequently ignored. Zappos's implementation of the new system, Holacracy, as reported in *The New York Times*, aptly illustrates this issue:

Tony Hsieh, the company's celebrated CEO, sent a 4,700-word email to the entire company with an ultimatum: *Embrace Holacracy or accept a buyout*. The financial terms were generous, and 210 employees, or some 14 percent of the work force, took the offer. After many employees left, Mr. Hsieh acknowledged that some of the remaining staff members wanted him to resign from the company he built . . . *For all of the talk of self-management and consensus building, the decision to go down this path was Mr. Hsieh's alone*.

Most successful organizations are so caught up in their day-to-day activities that they rarely, if ever, pause to reflect and to think objectively about themselves and their businesses. They fail to ask the probing questions that might lead them to question their basic assumptions, refresh their strategies, or reengineer their work processes.

Reflection frequently involves "double loop" learning, a concept first articulated by Chris Argyris of Harvard University. In single loop learning – the foundation of most "traditional" control systems – actual performance is simply compared to a predetermined goal. Single loop learning works well in simple and unchanging competitive situations, but frequently breaks down in complex and rapidly evolving environments. Double loop learning is adaptive and fares better in turbulent environments: performance is compared to objectives, but in addition, the objectives themselves – the firm's assumptions, premises, goals, and strategies – are continuously monitored, tested and reviewed.

Successful learning organizations implement proactive, innovative approaches to unique problems and opportunities, solicit the involvement of employees at all levels, and empower everyone to use their full capacities to achieve organizational goals. A learning environment involves organization-wide commitment, an action orientation, the development of new skills across all levels, and the use of all applicable tools and methods. The entire firm must accept

learning as a guiding philosophy, not just another "flavor of the month" change program.

Much has been written over the past few decades to inform research and practice on learning organizations. Several branches of inquiry have been advanced, including power and politics (e.g., moral suasion, negotiation, agenda setting), leadership (e.g., the role of transactional vs. transformational leadership), barriers to learning (e.g., lack of know-how, ambiguity over roles, misdirected goals), social processes (e.g., the role of intuition, interpretation, integration, and institutionalization), learning from failure, and standards and tools for assessment. These issues have been explored in various contexts and settings, including research and development, manufacturing, and partnerships and alliances.

A significant area of related inquiry focused on knowledge management explores the processes of the creation, transfer, and retention of knowledge and the extent to which it is distributed throughout the organization and among key stakeholders. A wide variety of topics have been explored such as the threats to learning during crisis, the effects of learning in joint venture success, the role of learning in generating entrepreneurial opportunities, and the relative advantages of bottom-up (based on experience) versus top-down (based on goals and tasks) decision-making processes. These endeavors draw on a variety of fields, including organizational behavior and theory, social psychology, sociology, economics, information systems, and strategic management.

THE LEARNING ORGANIZATION: FIVE CRITICAL ELEMENTS

Five critical elements and organizational processes are central to the development of a successful and sustainable learning organization:

- establishing and communicating a clear sense of direction and purpose
- empowering employees at all levels
- accumulating and sharing internal knowledge
- gathering and integrating external information
- challenging the status quo and enabling creativity.

Each is a *necessary* component in building a learning organization, but none by itself is *sufficient*. These critical elements are discussed and illustrated in the sections which follow. In order to assist the reader in relating these concepts to his or her own organization, we close with a *Strategic Inventory*, summarizing the key concepts in the form of a checklist.

Establishing and Communicating a Clear Sense of Direction and Purpose

A critical prerequisite for the creation of a learning organization is a clear, effectively communicated and broadly shared sense of direction and purpose. In the words of William O'Brien, formerly CEO of Hanover Insurance: "Before there can be meaningful participation, people must share certain values and pictures about where we are trying to go . . . people have a real need to feel that they're part of an ennobling

mission.” Perhaps, this is best exemplified by Medtronic, a \$29 billion medical products company. The company’s motto is “Restoring patients to full life,” and its symbol is an image of a supine human rising toward upright wellness. But how does the “resurrection” imagery come to life?

Each December, at the company’s holiday party, patients, their families, and their doctors are flown in to tell their survival stories. It’s for employees – who are moved to tears year after year – and journalists are generally not invited. One executive said, “I remember my first holiday party and someone asked me if I had brought my Kleenex. I assumed I’d be fine, but these parents got up with their daughter who was alive because of our product. Even surgeons who see this stuff all the time were crying.”

Clearly, such an inspiring mission would motivate employees more than maximizing shareholder returns! But, an inspiring and motivating purpose is not enough.

Empower Employees at All Levels

“The great leader is a great servant” asserts Ken Melrose, CEO of Toro Company and author of *Making the Grass Greener on Your Side*. In his view, the key role of top management is the creation of an environment in which employees can achieve their potential as they help move the organization toward its goals. Leaders must envision themselves not as resource controllers or power brokers, but as flexible resources willing to assume a variety of roles – coaches, information providers, teachers, decision makers, facilitators, supporters, or listeners – depending on the needs of their employees. Melrose observed: “I came to understand that you lead best by serving the needs of your people. You don’t do their jobs for them; you enable them to learn and progress on the job.”

Margaret Wheatley, a management consultant and advocate of servant leadership, argues that leaders need to give people resources, a sense of direction, a sense of their own power and have tremendous faith that they’ll figure it out. A leader truly empowering employees is not a heroic figure who takes the lead and determines what organizational members have to do, but a servant who facilitates more employee involvement.

Robert Quinn and Gretchen Spreitzer, in an *Organizational Dynamics* article, described two perspectives on empowerment, each based a different set of assumptions about trust and control. From the “top-down” perspective, empowerment is about delegation and accountability. This strategy for empowerment starts at the top. Senior management clarifies the organization’s mission, vision and values, clearly specifies tasks, roles and rewards, delegates responsibility and holds people accountable for results. The “bottom-up” view, by contrast, trusts employees to “do the right thing” and is tolerant of failure. From this perspective, the leader understands employee needs and models and encourages teamwork, cooperative behavior and intelligent risk-taking. Management then trusts people to perform, take initiative, “ask for forgiveness rather than permission,” and act with a sense of ownership.

When these contrasting views of empowerment were shared with a senior management team, after an initial heavy

silence, someone from the “top-down” group voiced a concern about the “bottom-up” perspective: “We can’t afford loose cannons around here.” A person in the latter group retorted: “When was the last time you saw a cannon of any kind around here.”

“Bottom-up” empowerment requires that organizations distribute information, knowledge (i.e., skills to act on the information), and rewards. For example, a company may give front-line employees the power to act as “customer advocates,” doing whatever is necessary to please the customers. To function effectively in this role, however, employees would also require appropriate training and knowledge – information about customer expectations, timely feedback, and data on firm performance. In order to make the best decisions in each customer interaction, employees have to clearly understand the goals, objectives and priorities of the organization and be knowledgeable about how key value-creating activities are related to each other.

New roles created by empowerment often require employees to develop new skills and take on new responsibilities. To succeed, employees must develop confidence in their ability to master these skills and take on unfamiliar challenges. Training is essential for building skills and increasing people’s confidence to respond to these challenges. Training and development initiatives must be aligned with strategic priorities, which may change over time, particularly in times of organizational stress and change. Organizational learning and development programs are often focused more generally and change less frequently. To reinforce employee empowerment, management development and skills training programs should be designed, implemented, and aligned with the objectives and performance metrics of the organization’s critical needs and priorities.¹

Finally, rewards should be allocated on the basis of how effectively employees use the information, knowledge, and power given to them to improve individual and organizational performance.

Many leading-edge organizations are moving in the direction of “bottom-up” empowerment, recognizing the need for trust, cultural control, and expertise (at all levels) rather than the cumbersome rules and regulations inherent in hierarchical control. Organizations too often fall prey to the “heroes-and-drones syndrome,” wherein the value of those in powerful positions is exalted and those who fail to achieve top rank are diminished. Such an attitude is implicit in phrases such as “Lead, follow, or get out of the way” or, even less appealing, “Unless you’re the lead horse, the view never changes.” The fact is, of course, that few will ever reach the top positions – but in a competitive environment increasingly dependent on knowledge and information, the strongest organizations will be those that effectively use the talents of all the players on the team.

Accumulating and Sharing Internal Knowledge

Most organizations have elaborate formal processes and devote considerable resources to gathering, organizing, and analyzing information about their inner workings and

¹ Ben-Hur, Jaworski and Gray: Aligning Corporate learning with Strategy (SMR Fall 2015).

overall performance. But all too often, the end products of this effort are available only to a limited group of individuals at the top – many of whom have insufficient time to read, understand and meaningfully interpret the volumes of information available. At lower levels, individuals see only the isolated bits and pieces of information related to their specific activities, and are largely “in the dark” about what is going on elsewhere or how their efforts relate to the overall performance of the organization. As a result, much of the potential value created is wasted because critical information is not made available to those who could most effectively use it.

International Data Corporation reports that the Fortune 500 companies lose around \$31.5 billion per year from the failure of knowledge sharing among employees. The late CEO of Texas Instruments was quoted as saying: “If TI² only knew what TI knows”. Lew Platt, the former chairman of Hewlett Packard expressed the same concern when he said “I wish we knew what we know at HP”. Both recognized that a vast store of knowledge existed within their organizations, but frequently existed only in isolated pockets of experience or expertise, and was often inaccessible to those to the rest of the organization.

Firms effectively facilitating knowledge and information sharing among employees often derive substantial benefits. The leaders of learning organizations have found ways to leverage their investment in internal information by creating a culture that: (1) encourages employees to offer ideas, ask questions, and express concerns; (2) encourages widespread sharing of information from various sources; (3) identifies opportunities and makes it “safe” to experiment and try new ideas; (4) encourages collaborative decision-making and the sharing of best practices; and (5) utilizes technology to facilitate both the gathering and sharing of information.

Encourages employees to offer ideas, ask questions, and express concerns. Most organizations have well-developed patterns of informal communications, but frequently those at the top are “out of the loop”. Leaders have to learn how to effectively gather internal information by tapping into informal sources and networks. To effectively tap into these networks, managers must do three things: (1) *listen effectively*; (2) be *accessible* – demonstrate that you want information and feedback; and (3) *provide opportunities* for information exchange.

In a survey of presidents, CEOs, board members, and top executives in a variety of organizations, respondents were asked what differentiated the successful candidates for promotion. The consensus: *The executive was seen as a person who listens*. According to Peter Meyer, the author of the study: “The value of listening is clear: You cannot succeed in running a company if you do not hear what your people, customers, and suppliers are telling you. Poor listeners do not survive. Listening and understanding well are key to making good decisions.”

Effective leaders should beware the errors of poor listening and misinterpretation. Once an associate told movie producer Sam Goldwyn that audiences would not respond to the script he wanted to produce – it was *too caustic*.

Goldwyn’s reply: “*Too costly?* To hell with the cost. If it’s a good picture, we’ll make it.” Did he miss the point?

John Chambers, the executive chairman and former CEO of Cisco Systems, has a vehicle for getting candid feedback from employees. Every year during their birthday month, employees at Cisco’s corporate headquarters receive an e-mail invitation to a “birthday breakfast” with Chambers. Any question is fair game and directors and vice presidents are strongly discouraged from attending. Typically, several dozen employees show up and fire some pretty tough questions – including stark assessments of perceived management failings. Although not always pleasant, Chambers believes it is an indispensable hour of unmediated interaction. At times, he finds there’s an inconsistency between what his executives say they are doing and what’s actually happening. For example, at a quarterly meeting with 500 managers, Chambers asked how many managers required potential hires to have five interviews. When all raised their hands, he retorted: “I have a problem, because at the past three birthday breakfasts, I asked the new hires how many had interviewed that way, and only half raised their hands. You’ve got to fix it.”

Encourages widespread sharing of information from various sources. The CEO needs to tap into information from across the organization, but even more valuable is³ the creation of a culture and an environment in which critical knowledge and best practices are widely shared among employees – leveraging organizational learning and success from one part of the organization to others. Both successes and failures need to be shared – frequently there is more to be learned from failures – but individuals and organizations are naturally reluctant to share the hard lessons learned from unsuccessful initiatives. Failures are frequently “swept under the rug” and concealed from the rest of the organization rather than leveraged for the benefit of the valuable lessons to be gained.⁴

In most organizations, the formal sources of internal information represent the by-products of an accounting system designed years earlier and, by its very nature, focused on what happened weeks or months ago. Aggregated, summarized, standardized and sanitized, this kind of information has its place, but lacks the “freshness” and urgency of direct personal communications through informal channels.

Jack Stack is founder and CEO of SRC Holdings and the Springfield ReManufacturing Corporation. The author of *The Great Game of Business*, Stack is generally considered the pioneer of “open book” management – an innovative approach to gathering and disseminating internal information. At SRC, numbers were generated daily for each of the company’s employees, reflecting their work performance and production costs. This information, aggregated once a week, was shared with all of the company’s people: everyone from secretaries to top management, and extensive training – how to understand balance sheets, income statements and cash flows – was provided to enable employees to use and interpret the numbers appropriately.

In explaining why SRC embraces open book management, Stack explains: “We’re building a company in which everyone

² O’Dell and Grayson: If only we knew what we know.

³ O’Dell and Grayson “If only we knew”.

⁴ Edmonson (HBR April 2011).

tells the truth every day – not because everyone is honest but because everyone has access to the same information: operating metrics, financial data, valuation estimates. The more people understand what’s really going on in their company, the more eager they are to help solve its problems. Information isn’t power. It’s a burden. Share information, and you share the burdens of leadership as well.”

Sharing company information has value in organizations of all sizes. Leonhardt Plating Company, a manufacturer of steel plating, is a very small company. Its CEO, Daniel Leonhardt, unable to find a qualified replacement for his polishing foreman, resorted to a desperate, if cutting-edge, strategy. He decided to let the polishing department rule itself by committee. The results? Revenues were up 25 percent in the following year. After employees had access to company information such as material prices, their decisions began paying off for the whole firm. Says Leonhardt: “The workers are showing more interest in the company as a whole.” Not surprisingly, he plans to introduce committee rule to other departments.

Southern Company, an electric utility operating on the Gulf Coast aptly illustrates the benefits of knowledge and information sharing. After hurricane Ivan hit the Gulf Coast, Southern Company’s two power plants Gulf Power and Mississippi Power were off-line for an extended period. They later shared the drawings of substations with field engineers who took charge of those substations. When hurricane Katrina hit the following year, with the necessary information in the hands of field personnel, the company quickly recovered and restored power to its customers.

Identifies opportunities and makes it “safe” to experiment and try new ideas. Employees at all levels should be encouraged to suggest process improvements. Senior managers should foster and encourage an environment in which employees are willing to share their ideas, experiment with new approaches and learn from mistakes and failures.

One of the authors observed a suggestion system that was quite innovative in its implementation. Kurta Corporation, a Japanese-owned manufacturer of digitizers, installed a huge, four-foot square by ten-foot tall Plexiglas box in the company cafeteria to reinforce the importance and visibility of its suggestion program. A white ping pong ball was added for each submitted suggestion and (in addition to a financial incentive) a gold ping pong ball was dropped in for each suggestion that was adopted.

Employees must be encouraged to experiment and try new ideas without fear of failure or retribution. Whenever you challenge the status quo, tackle demanding problems or confront adversity, you will sometimes fail. Failure is never the objective, but when it occurs, it creates a clear and unequivocal opportunity for learning. Most people learn more from their failures than from their successes. Success can breed failure by hindering learning at both the individual and organizational level. To reinforce the point, as Henry Petroski observed in a recent *Harvard Business Review* article, the failure of the *Titanic* contributed more to the design of safe ocean liners than would have her success. Effective leaders don’t look for someone to blame when things go wrong, but rather ask what can be learned from the experience.

Sometimes deliberate experimentation yields unexpected benefits, as when Citibank experimented with issuing credit cards to students with high debts and no current income

without requiring their parents to co-sign. These students were traditionally considered bad credit risks, but Citibank discovered that parents often bailed out student cardholders when they couldn’t pay. Many of the students ultimately became valuable long-term customers. Experiments make sense and yield valuable learning when key assumptions are clearly identified, and simple and relatively low-risk trials can be designed to test, validate and confirm or refute the assumptions.⁵

Dramatic successes often result when employees are encouraged to spot opportunities and develop their ideas. Shutterstock Inc. a \$500 million NYSE company, is a provider of content such as digital images, commercial music, and web-based asset management tools. With over 100 million images in its inventory, this firm is a global industry leader. Every year, the firm hosts 24-hour-hackathons – an event of software development – to encourage all employees to pursue any type of ideas that may improve the firm performance. Many of the company’s main products and services have been developed as a result of this event.

Gmail, the first email service with a web-searching function and storage, was created by Google’s 23rd employee, Paul Buchheit. He started on the project on his own in 2001. Google introduced the widely-used highly successful product to the market in 2004.

Encourages collaborative decision-making and the sharing of best practices. Leaders provide opportunities for employees to work together and learn from each other, and encourage them to call on colleagues from other parts of the organization for assistance with unforeseen, novel or complex problems. Nowhere is learning and the transfer of knowledge more critical than in new product development, where families of products based on a common technological platform require that experience and expertise be transferred from one development team to the next, focused on the development of subsequent generations.

Within every organization, “experts” are widely known and appreciated for their tacit knowledge – the experience and “deep smarts” they carry around in their heads. Deep smarts are not merely facts and data that anyone can access, but are experience-based ways of thinking, behaving and making decisions that have been proven to work in the past. Tapping into this knowledge is often problematic, however, tacit knowledge is notoriously difficult to access or pass on to others. By⁶ placing these experts in the role of “knowledge coaches”, their accumulated expertise can be passed on to novices through guided practice, experimentation and problem-solving. Learning from experts often requires deliberate strategies of observation, practice, shared problem-solving and eventual accumulation of an individual’s own experience and expertise.⁷

Utilizes technology to facilitate both the gathering and sharing of information. Technology can also play a vital role in gathering and disseminating information across an organization. Access Health, a call-in medical center, is a role model in this regard. Access Health shares knowledge and

⁵ Shoemaker and Gunther: The Wisdom of Deliberate Mistakes; McGrath: Failing by Design.

⁶ Leonard & Swap: Deep Smarts.

⁷ Leonard, Barton and Barton: “Make yourself an expert”.

information such as diseases relevant to a caller's symptoms by establishing a knowledge repository called "clinical decision architecture", and allowing a registered nurse, for example, to make decisions more effectively and efficiently. Joseph Tallman, CEO of Access Health, observed: "We are not inventing a new way to cure disease. We are taking available knowledge and inventing processes to put it to better use" While establishing the knowledge sharing system was costly, the investment has been repaid several times. The first 300 algorithms Access Health developed are used around 8000 times per year.

Sharing internal information is important, but if the organization is out of touch with its external environment, the information shared internally may be irrelevant. In the following section we will discuss how leading organizations learn from their environments – gathering, distributing and integrating critical external information into their organizational knowledge base.

Gathering and Integrating External Information

Recognizing the opportunities – and the threats – in the external environment is vital to a firm's success. The organization must become "externally aware" and sensitive to all that is going on around it, tapping into sources of new knowledge from alliance partners, suppliers, competitors and the scientific community. Focusing exclusively on the efficiency of internal operations may result in a firm becoming, in effect, the world's most efficient producer of typewriters or leisure suits – hardly an enviable position! As organizations and environments become more complex and evolve rapidly it is critical for employees and managers to understand environmental events and trends – both general and industry-specific – and to gather and interpret current intelligence about the firm's competitors and customers. How effectively an organization gathers, interprets and integrates relevant external information into its internal decision-making processes has a lot to do with its competitive performance.

Networks of alliances and collaboration with others are increasingly common as sources of both competitor intelligence and relevant⁸ new knowledge. In the pharmaceutical and biotechnology industry, participation in networks and alliances is increasingly common and critical to knowledge diffusion, learning and technology development.

Organizational strategies and competitive responses are frequently based more on management's collective assumptions, premises and beliefs than on an objective understanding of the competitive environment. Hamel and Prahalad, in *Competing for the Future*, maintain that "every manager carries around in his or her head a set of biases, assumptions and presuppositions about the structure of the relevant 'industry,' about how one makes money in the industry, about who the competition is and isn't, about who the customers are and aren't, about which technologies are viable and which aren't, and so on." Peter Drucker calls this interrelated set of assumptions the "theory of the business".

⁸ Powell: Learning from Collaboration; and Inkpen: Creating Knowledge through collaboration.

Strategies frequently go awry when management's internal frame of reference is out of touch with the realities of the business situation, when one or more of management's assumptions, premises, or beliefs are incorrect, or when internal inconsistencies among them render the overall "theory of the business" no longer valid. Arthur Martinez, former Chairman of Sears, Roebuck & Co. puts it this way: "Today's peacock is tomorrow's feather duster."

In the business world, many peacocks have, in essence, become feather dusters in recent years. Consider Motorola in the telecommunication sector. Although it used to boast about its risk taking culture and endless innovation, the firm made a series of bad decisions because it failed to sense changes in market conditions. Its huge \$2.6 billion investment in the Iridium satellite system resulted in \$3000 phone with a \$7 per minute price tag and was sold a decade later for only \$25 million. Furthermore, Motorola taught Apple how to make a phone while they were refusing to start a smartphone business but rather continuing to produce the Razr. Motorola's lagging phone operations were sold to Lenovo in 2014.

In a rapidly changing competitive environment, the organization's "theory of the business" must be continuously tested, updated and refined with new information. Who is responsible for gathering and interpreting the critical information that every organization needs to validate its key assumptions and identify new opportunities? In the learning organization, it's everyone's job, from the CEO on down, and the rewards for those who sense the opportunities and get it right are tremendous! So how does the learning organization go about ensuring that all organizational members are "in touch" with its environment? We believe the process begins by creating a "culture of external awareness."

Creating a Culture of External Awareness

In small entrepreneurial organizations, one externally-aware visionary who is alert to the potential opportunity or sees the first signs of impending danger may be enough. In larger organizations, however, the CEO can't do it all. He can, however, create and reinforce a culture that is sensitive to and aware of its environment, curious about its surroundings, and responsive to the early signals of change. Hundreds of pairs of eyes and ears will clearly be more effective than one or two in detecting the early signals of environmental change. We believe that five key elements must be addressed in creating a culture of external awareness:

- **Priority.** Gathering and sharing relevant external information should become an organizational priority – part of the culture.
- **Involvement.** Everyone should be involved. Front line customer contact personnel: salesmen, service technicians, purchasing agents and receptionists, are in constant contact with outside parties and their committed involvement is essential.
- **Focus.** No organization needs to know everything about its environment – but some things are vital. People need to know what to look for – what is relevant and important to the success of the organization – and what can be safely ignored.
- **Process.** Relevant information must be quickly and accurately communicated within the organization, properly

interpreted, and delivered to those who have the authority and responsibility to take appropriate action.

- **Motivation.** Formal incentives, rewards and recognition have their place, but positive feedback about how a contribution helped the organization is often sufficient.

Tools and Techniques

While most organizations will acknowledge the need to better understand their competitive environments, few are unwilling to invest the organizational resources necessary to implement a formal program of competitor intelligence. A variety of less formal – but not necessarily less effective – means can be used to “keep in touch” with their environments. To illustrate these points, we will provide a few selected examples:

- **Conventional sources: trade journals and business periodicals.** Much can be learned from trade and professional journals, popular business books and the periodicals like *Forbes*, *Bloomberg BusinessWeek*, *Fortune*, *Fast Company* and *Wired*, but no one individual has time to read them all. If, however, everyone in the organization is involved in gathering external information, a broader range of sources can be covered. For example, some professional and trade journals have an extremely narrow focus but can be very useful.
- **Using the Internet.** Locating an organization’s former employees – always a good source of information – used to be quite a challenge. Today, many people post their resumes on the LinkedIn or job-posting sites, participate in discussion groups and say where they work. It’s pretty straightforward. Detailed information about private companies is often not readily available, but when one of his analysts tried *Deja News*, an early search engine that tracked on-line discussion group, they found postings of 14 job openings – a road map of its development strategy. *Deja News* was acquired by Google in 2001 and incorporated into the groups.google.com.
- **Using big data analytics.** Characterized by *Information Week* as a “do-or-die requirement for today’s businesses,” strategies and tools for managing large volumes of both structured and unstructured data are used to identify trends, detect patterns and glean valuable findings from the sea of information available to companies. For example, PrecisionHawk’s sophisticated aerial mapping software is used along with big data analytics to support the agricultural, oil and gas, mining, utility and transportation industries. Commenting on a test in the California vineyards of Hahn Estate Winery, the director of viticulture, Andy Mitchell, “we’re getting a clearer picture of what’s going on at the vineyard . . . we want to apply this to all of our acres.”
- **Networking.** Networking among colleagues inside and outside of one’s industry – at trade shows, conventions and professional associations – is useful for gathering external information. The late Andy Grove, legendary CEO of Intel, used to pick the brains of people like DreamWorks SKG’s Steven Spielberg and Tele-Communications Inc.’s John Malone to gain insights into how to make PCs more entertaining and better at communicating. He also spent time with the young propeller-heads who run Intel Architecture labs, an internal skunk-works that Grove

hoped will become the de-facto R&D lab for the entire PC industry.

- **Benchmarking.** Benchmarking finds ways to improve your firm by identifying and adopting best practices from other firms. *Competitive benchmarking* is used by Ford Motor Company and its suppliers when they disassemble their own and competitors’ products, examine the differences, and figure out which parts they need to improve. *Functional benchmarking* endeavors to identify best practices regardless of industry. Progressive’s pay-as-you-go insurance program (*Snapshot*) resulted from benchmarking utility companies. A former regional president, Willy Graves, describes *Snapshot* as “more like a monthly utility or telephone bill, with the consumer paying by the month based on actual usage rather than on historical data derived from similar people and vehicles.” Progressive’s product development director observed: “It’s very simple. The less you drive, the less you pay”
- **Sharing information with customers and stakeholders.** Many organizations learn a great deal by regularly sharing information with customers and suppliers. William McKnight, head of 3M’s Chicago sales office required that the salesmen of abrasives products talk directly to the men in the shop to find out what they needed, instead of calling on the executives in the front-office. This was innovative in 1909 and is still a good practice, illustrating the need to get to a product or service’s end user. McKnight went on to become 3M’s President from 1929 to 1949 and Chairman until 1969. More recently, social media has been used for sharing information and exchanging feedback with customers. Grubhub Inc. a \$2.94 billion online and mobile food-ordering company is famous for its active two-way utilization of Twitter, providing customers and followers with fun food-related information and responding to customers’ complaints and suggestions quickly.

None of these techniques are, of course, the entire answer. Many other approaches – conventional and unconventional – are available and appropriate under the circumstances. In the learning organization, when everyone is involved, there is ample room for a variety of approaches. The important thing is that the organization stays in touch – is fully aware – of both the day-to-day events and longer term trends in its competitive environment, and that critical information is widely shared and forwarded to the appropriate decision-maker in a timely manner.

Challenging the Status Quo and Enabling Creativity

Here is Edward Bear, coming downstairs now, bump, bump, bump, on the back of his head, behind Christopher Robin. It is, as far as he knows, the only way of coming downstairs, but sometimes he feels that there really is another way, if only he could stop bumping for a moment and think of it.

Opening lines in A. A. Milne’s classic *Winnie-the-Pooh*

Unlike Edward Bear, organizations and people do have a choice. So why are so many organizations are prone to inertia, slow to learn, adapt, and resistant to change – in

essence just “bumping along”? Why do companies struggle to become or remain “learning organizations”?

Barriers to Change

Researchers have identified numerous barriers to organizational change, including a fear of failure, commitment to the status quo, time constraints, and structural, behavioral, and political barriers. In the sections below we will describe some of the most common barriers and provide examples of how some leading organizations have learned to overcome them.

- **Fear of failure.** It is common knowledge that individuals and organizations learn more from failures than from successes, but organizations won't develop new capabilities or take appropriate risks unless failure is tolerated. When mistakes happen, we often try to sweep them under the rug and thus fail to apply the lessons to future initiatives. But unless reasonable risk-taking is encouraged, failures are allowed to see the light of day, and organizations to learn from them, progress will be limited.
- **Commitment to the status quo.** Many people have vested interests in the status quo. Years of behavioral research on the subject of “escalation” documents the tendency of individuals (both in the laboratory and in actual management practice) to “throw good money after bad” despite negative performance feedback. People's vested interest in the status quo makes them unwilling to admit bad decisions or “defeats.” After all, careers may be on the line!
- **Overconfidence.** A pattern of success can lead to overconfidence. Individuals may come to believe that their personal contributions were more responsible for prior accomplishments than environmental factors or random events. Too much faith in their own abilities can lead to the failure to ask the tough questions that would expand their knowledge or alter their assumptions about how the world works.
- **Structural barriers.** The design of the organization's structure, information processing, reporting relationships, etc., often impede the proper flow and evaluation of information. A bureaucracy with multiple layers, onerous requirements for documentation, and rigid rules and procedures will often “inoculate” the organization against change. Fledgling enterprises and product development teams are often isolated from the core in organizational silos that impede the sharing and transfer of knowledge
- **Political barriers.** Political barriers have their roots in the power relationships within organizations. They manifest themselves in a variety of ways, including vested interests (such as the aforementioned escalation problems), refusal to share information, hoarding or other conflicts over resources, departmental rivalries, petty interpersonal differences, etc.
- **Time constraints.** The implementation of meaningful change requires a commitment of time and effort. The problem of “not having time to drain the swamp when you are up to your neck in alligators” (slight paraphrase!) illustrates this point. In effect, Gresham's law of planning states that operational decisions will drive out the time necessary for strategic thinking and reflection. This tendency is accentuated in organizations experiencing severe competition and/or retrenchment wherein managers and employees are spread rather thin.

Overcoming the Barriers

How can organizations overcome these barriers to change and enable and foster the creativity required to take full advantage of organizational learning? Although there are no panaceas, we believe that the following guidelines should promote the challenging of the status quo — and help a firm to become a “learning organization”:

- **Create a sense of urgency.** Perhaps the primary means to directly challenge the status quo is for the leader to forcefully create a sense of urgency. This approach can be very effective in establishing the need and channeling energies to bring about both significant change and creative endeavors. According to Tom Kasten, a former Vice President of Levi Strauss: “You create a compelling picture of the risks of not changing. We videotaped interviews with customers and played excerpts. One said, ‘We trust many of your competitors implicitly. We sample their deliveries. We open all Levi's deliveries.’ Another said, ‘Your lead times are the worst. If you weren't Levi's, you'd be gone.’ It was powerful. I wish we had done more of it.”
- **Encourage constructive dissent.** Encouraging “constructive dissent” can be another effective means of questioning the status quo — as well as a spur toward creativity. Here, norms are established whereby dissenters can openly question a superior's perspective without fear of retaliation or retribution. Robert Kaplan, a professor at the Harvard Business School observes: “I have seldom seen people hurt their careers by speaking up and appropriately articulating a well-thought out contrary position. However, I have seen many bitter and confused people who stalled their careers by playing it safe.” At Levi Strauss & Co., dissent is openly encouraged by hanging white boards in the hall for employees to anonymously challenge ideas and record their observations and criticisms.
- **Encourage experimentation and risk-taking.** Closely related to the “culture of dissent” is the fostering of a culture that encourages risk-taking. You may not get it right the first time. John Holt, coauthor of *Celebrate Your Mistakes* claims that “If you're not making mistakes, you're not taking risks, and that means you're not going anywhere. The key is to make errors faster than the competition, so you have more chances to learn and win.” People who stretch the envelope and ruffle feathers are protected and encouraged with the mantra “It's better to ask forgiveness than to ask permission.” If a manager at Taiwan-based Acer Computer took an intelligent risk and made a mistake — even a costly one — former CEO Stan Shih wrote the loss off as tuition payment for the manager's education.
- **Get everyone involved.** Firms can also benefit from maximizing the number of sources used and opportunities available to spur creativity and encourage innovative ideas throughout their organizations. Concrete mechanisms should be used to supplement management philosophy and cultural norms. For example, executives at the Walt Disney Company sponsor a “Gong Show” in which everyone in the company — including secretaries, janitors, and mailroom staff — gets the opportunity to pitch ideas to the top executives. Jeffrey Bair, a former Vice-President, drives the point even harder: “You have to put your

corporation's destiny into the hands of someone you wouldn't want your daughter dating."

CONCLUSION

Overcoming the barriers to change and fostering creativity at every level of the organization is a difficult task – but at the heart of becoming a learning organization. There are no instant answers and no shortcuts to learning how to learn. Our examples have illustrated a few of the successful approaches we have observed, but each organization must necessarily find its own best way, keeping in mind the five critical elements and organizational processes identified earlier:

- establishing and communicating a clear sense of direction and purpose
- empowering employees at all levels
- accumulating and sharing internal knowledge
- gathering and integrating external information
- challenging the status quo and enabling creativity.

None of these elements, by itself, is sufficient, nor do they define a sequential process. Rather, each reinforces and strengthens the others. Becoming a learning organization is an ongoing process that follows an ill-defined path with many branches along the way. Success comes slowly over time, as a result of consistent emphasis and reinforcement of an organizational commitment to continuous improvement on each of these dimensions.

The Exhibit which follows presents a Strategic Inventory – a checklist to help the reader relate the key concepts and ideas presented in this article to his or her own organization. Use it as a stimulus to the development of your plans and strategies and as a yardstick to gauge your progress toward becoming a learning organization.

EXHIBIT 1 – STRATEGIC INVENTORY

ESTABLISHING A CLEARLY UNDERSTOOD SENSE OF DIRECTION AND PURPOSE

- Do all employees feel and support a compelling purpose for the organization (beyond shareholder returns)?
- Are training and management development programs clearly and explicitly aligned with organizational strategy?

EMPOWERING EMPLOYEES AT ALL LEVELS

- Do leaders – at all organizational levels – take time to reflect and question important goals, strategies, tactics and underlying assumptions? Is there continuous “double loop” learning?
- Does the organization support and encourage “bottom-up” empowerment?

ACCUMULATING AND SHARING INTERNAL KNOWLEDGE

- Is the gathering and disseminating of internal information a widely accepted practice? Is it performed effectively and efficiently?
- Do managers at all levels have strong listening skills?
- Do managers at all levels and use effective techniques to tap informal sources of information?

GATHERING AND INTEGRATING EXTERNAL INFORMATION

- Is the creation and sharing of external information a widely accepted practice? Is it performed effectively and efficiently?
- Do managers throughout the organization have a sound awareness of emerging trends and events in the industry as well as the general environment?
- Are managers' internal frames of reference in synch with the realities of the business situation?
- Does the organization make effective use of technology to generate and distribute internal and external information?

CHALLENGING THE STATUS QUO AND ENABLING CREATIVITY

- Do employees throughout the organization actively question the status quo?
- Is there a strong “culture of dissent” and a “freedom to fail” mentality?
- Are ideas encouraged throughout all levels of the organization?
- Does the organization have structural mechanisms and a culture that foster creativity?



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