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Market Orientation and the Learning Organization

Effective organizations are configurations of management practices that facilitate the development of the knowledge that becomes the basis for competitive advantage. A market orientation, complemented by an entrepreneurial drive, provides the cultural foundation for organizational learning. However, as important as market orientation and entrepreneurship are, they must be complemented by an appropriate climate to produce a "learning organization." The authors describe the processes through which organizations develop and use new knowledge to improve performance. They propose a set of organizational elements that comprise the learning organization and conclude with recommendations for research to contribute to the understanding of learning organizations.

The importance of a market oriented business culture¹ is crucial to managers and scholars alike (e.g., Day 1990, 1992; Deshpande and Webster 1989; Narver and Slater 1990; Shapiro 1988). A market orientation is valuable because it focuses the organization on (1) continuously collecting information about target-customers' needs and competitors' capabilities and (2) using this information to create continuously superior customer value. Comprehensive theories of the nature and consequences of a market orientation have been developed (e.g., Kohli and Jaworski 1990; Narver and Slater 1990; Shapiro 1988) and a body of research illustrating the relationship between market orientation and performance has emerged (Deshpande, Farley, and Webster 1993; Jaworski and Kohli 1993; Narver and Slater 1990; Ruekert 1992; Slater and Narver 1994). Market orientation has taken a central role in discussions about marketing management and strategy (Day 1992).

However, for a business to maximize its ability to learn about markets, creating a market orientation is only a start. A market oriented culture can achieve maximum effectiveness only if it is complemented by a spirit of entrepreneurship and an appropriate organizational climate, namely, structures, processes, and incentives for operationalizing the cultural values (Deshpande and Webster 1989). Thus, the critical challenge for any business is to create the combination of culture and climate that maximizes organizational learning on how to create superior customer value in dy-

namic and turbulent markets, because the ability to learn faster than competitors may be the only source of sustainable competitive advantage (DeGeus 1988; Dickson 1992).

We argue that though a market orientation provides strong norms for learning from customers and competitors, it must be complemented by entrepreneurship and appropriate organizational structures and processes for higher-order learning (double-loop learning in Argyris 1977; generative learning in Senge 1990) to occur. In summary, the cultural values of a market orientation are necessary, but not sufficient, for the creation of a learning organization.

Although numerous authors (e.g., Garvin 1993; McGill, Slocum, and Lei 1992; Senge 1990) have discussed the learning organization, there is no widely accepted theory of what comprises the culture and climate of a learning organization. Our objectives are to propose a theory of the learning organization that extends our understanding of the benefits of market orientation and stimulate research on the learning organization. To accomplish this we:

1. Describe the process through which organizations develop new knowledge and change their behavior to reflect the better understanding of their domains.
2. Explain how knowledge-driven behavior change creates and sustains competitive advantage during periods of high uncertainty.
3. Propose a set of organizational elements, grounded in theory, that comprise the culture and climate of the learning organization.
4. Suggest topics for further research.

Organizational Learning

At its most basic level, organizational learning is the development of new knowledge or insights that have the potential to influence behavior (e.g., Fiol and Lyles 1985; Huber 1991; Simon 1969; Sinkula 1994). Presumably, learning facilitates behavior change that leads to improved performance (Fiol and Lyles 1985; Garvin 1993; Senge 1990; Sinkula 1994). All businesses competing in dynamic and turbulent environments must pursue the processes of learn-

¹By considering the terms *market oriented*, *market driven*, and *customer focused* to be synonymous, we follow Shapiro (1988), Deshpande and Webster (1989), and Deshpande, Farley, and Webster (1992).

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ing, behavior change, and performance improvement. In the subsequent section, we describe the difference between adaptive and generative learning, and discuss the processes of information acquisition, information dissemination, and shared interpretation that comprise organizational learning and are the basis for behavior change.

Types of Organizational Learning

Adaptive learning. Adaptive learning (Senge 1990; also referred to as single-loop learning by Argyris 1977), the most basic form of learning, occurs within a set of recognized and unrecognized constraints (i.e., the learning boundary) that reflect the organization's assumptions about its environment and itself. For example, Prahalad and Bettis (1986) argue that businesses can be managed effectively using a dominant general management logic that focuses the conceptualization of the business and guides the development of core capabilities. However, an unintended consequence is that, left unquestioned, the dominant logic may allow core capabilities to become "core rigidities" that can inhibit innovation (Leonard-Barton 1992). Furthermore, Hamel and Prahalad (1991, p. 83) describe the "tyranny of the served market," in which narrow business definitions impede the search for unconventional business opportunities. The previous examples of both dominant logic and served market show how conceiving of the company and its environment from a narrow perspective substantially reduces the range of opportunities that managers might pursue and the manner in which they might pursue them. The resulting learning boundary constrains organizational learning to the adaptive variety, which usually is sequential, incremental, and focused on issues or opportunities that are within the traditional scope of the organization's activities.

Generative learning. Generative learning (Senge 1990; double-loop learning in Argyris 1977) occurs when the organization is willing to question long-held assumptions about its mission, customers, capabilities, or strategy. It requires the development of a new way of looking at the world based on an understanding of the systems and relationships that link key issues and events. Systems thinking disciplines the organization to focus on interrelationships and dynamic processes of change rather than on linear cause-effect chains (Senge 1990).

For example, Stalk (1988) offers the proposition that time is the key linkage in organizational systems of manufacturing, sales and distribution, and innovation. However, reducing the time in one of these systems requires a fundamental change in the way a company accomplishes its work and serves its customers (Bower and Hout 1988). Stalk (1988) explains how companies that recognized these relationships focused their strategic efforts on speeding new products to market and reducing manufacturing time, which, consequently, provided timing and quality advantages. In contrast, their competitors focused on optimizing activities that occurred within traditional functional areas, such as quality improvement efforts in manufacturing. Thus, some companies focused on systems of business practices and redefined the way their business was conducted, whereas others concentrated on making functions more efficient. The

latter is characteristic of adaptive learning and is typical of businesses with strong functional commitments that become core rigidities. Generative learning is frame-breaking and more likely to lead to competitive advantage than adaptive learning.

However, sustained generative learning is an elusive goal. Although Wal-Mart redefined the discount retail industry through its focus on logistics and information technology, in contrast to the traditional emphasis on product lines and merchandising, it has sustained its competitive advantage through continued incremental investments and improvements in the system (Stalk, Evans, and Shulman 1992). Toyota became renown for offering the highest quality automobiles in the world through its development of the "lean production" system (Womack, Jones, and Roos 1990). Yet, Toyota has seen its quality advantage erode as competitors learned lean production methods and introduced them into their own facilities (Ingrassia and White 1994). Bhidé (1986) argues that opportunities to gain a lasting advantage using a blockbuster strategic move are exceedingly rare. Thus, revolutionary periods of generative learning may provide a window of competitive advantage that can be kept open only through continuous improvement. Eventually the window will begin to close as knowledge about the innovation diffuses to competitors.

Processes of Organizational Learning

Organizational learning is a three stage process that includes information acquisition, information dissemination, and shared interpretation (Sinkula 1994).

Information acquisition. Information may be acquired from direct experience, the experiences of others, or organizational memory. The learning curve, or experience curve, shows the clearest illustration of acquiring knowledge from internally-focused experience (termed "exploitation" by March 1991) and the effect of cumulative production and user experience on productivity in manufacturing. Examples of learning from externally focused experience (termed "exploration" by March 1991) include the use of large scale demonstration projects and small-scale market experiments (Garvin 1993; Hamel and Prahalad 1991). Organizations must continually balance between learning from exploitation and exploration because too much reliance on the former is unlikely to lead to generative learning, whereas too much reliance on the latter is expensive and may produce too many underdeveloped concepts and ideas (March 1991).

Learning from others encompasses common practices, such as benchmarking, forming joint ventures, networking, making strategic alliances, and working with lead customers, who both recognize strong needs before the rest of the market and are motivated to find solutions to those needs (Kanter 1989; Webster 1992). Learning from others also includes providing continuing education or training. Effective managers establish multiple credible internal and external sources to obtain objective information about their enterprise and its surrounding environments. They search beyond their organization's formal information systems, fearing them to be too historical, tradition bound, or extrapolative to expose fundamental shifts in the market or organization

(Quinn 1978). To avoid the adaptive learning trap, executives ensure that their networks include people with different perspectives from those who are dominant in the organization.

If it were not for organizational memory, learning would have a relatively short half-life because of personnel turnover and the passage of time (Levitt and March 1988; Sinkula 1994). Organizational memory is particularly important in this era of restructuring and reliance on temporary or contract workers. It is essential that important knowledge be codified or recorded in information systems, operating procedures, white papers, mission statements, organizational stories, or routines. The extent to which these memories are used and are useful will determine how long the memory should persist. However these memories may constrain generative learning or even encourage ineffective learning if they focus the organization inappropriately (Dickson 1992). If this happens, a traditional capability can become a "core rigidity" (Leonard-Barton 1992; Levitt and March 1988; March 1991). In other words, new procedures or capabilities may be more effective than old ones, but the organization is unwilling or unable to reject the capability in which it has invested so heavily. In this situation, the organization must promote active unlearning (Schein 1990) and motivate its personnel to take risks (Schein 1993). As John Seely Brown (1991, p. 192), the Chief Scientist of the Xerox Palo Alto Research Center, explains, "Unlearning is critical in these chaotic times because so many of our hard-earned nuggets of knowledge, intuitions, and just plain opinions depend on assumptions about the world that are simply no longer true."

Information dissemination. Organizational learning is distinguishable from personal learning by information dissemination and accomplishing a shared (organizational) interpretation of the information. Effective dissemination, or sharing, increases information value when each piece of information can be seen in its broader context by all organizational players who might use or be affected by it and who are able to feedback questions, amplifications, or modifications that provide new insights to the sender (Glazer 1991; Quinn 1992). For example, to drive new products from concept to launch more rapidly and with fewer mistakes, Gupta, Raj, and Wilemon (1986, p. 7) conclude that, "all functional interfaces are important in the product development process." Effective interfacing is accomplished through greater emphasis on "multifunctional activities ... multifunctional discussions, and information exchange," (Cooper and Kleinschmidt 1991, p. 140). When organizations remove the functional barriers that impede the flow of information from development to manufacturing to sales and marketing, they improve the organization's ability to make rapid decisions and execute them effectively. Increasingly, organizations encourage information sharing in the development process by sending people from multiple functions on customer visits. Not only does this stimulate real-time information sharing, but it also generally increases the quality of the information gathered (McQuarrie and McIntyre 1992). The quality of the information sharing process between organizations has also been found to be critical to the success of partnerships and alliances (Mohr and Spekman 1994).

Shared Interpretation. The final stage of organizational learning is shared interpretation of the information. For organizational learning to occur in any business unit, there must be a consensus on the meaning of the information and its implications for that business (e.g., Day 1994b). Dess and Orger (1987) find that high performing firms in dynamic and complex markets strive for consensus to ensure effective strategy implementation. However, prior to achieving consensus, "organizations competing within an industry experiencing high growth may benefit from a relatively high level of disagreement in assessing the relative importance of company objectives and competitive methods" (Dess 1987, p. 274; see also Argyris and Schon 1978). The result of disagreement is a closer inspection of the validity of different assumptions and alternatives. Thus, high performance in a dynamic environment requires balancing the need for rapid decision making with the need to consider carefully the ramifications of alternative action plans through effective conflict resolution processes (Bourgeois and Eisenhardt 1988; Eisenhardt 1989).

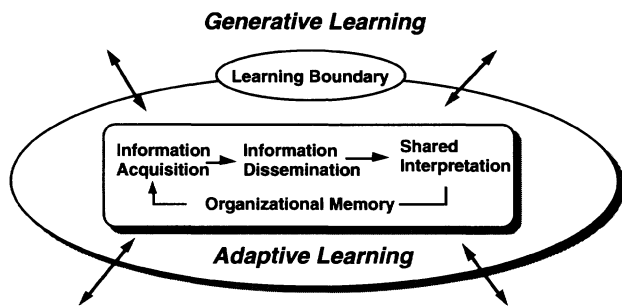
Effective conflict resolution may require the use of structured processes for surfacing disagreement, because allowing disagreement to surface informally may cause it to become emotional and adversarial and create long-term rifts among key members of the management team (Cosier and Schwenk 1990). By exposing new information to multiple interpretations using programmed techniques such as dialectical inquiry and devil's advocacy² (e.g., Argyris and Schon 1978; Cosier and Schwenk 1990; Schwenk 1989), and developing alternative action plans for constructive discussion (Eisenhardt 1989), new insights leading to generative learning may be developed in a positive atmosphere

Conflict resolution is further enhanced by the development of group norms that encourage open sharing of information and remove constraints on information and communication flows (Kanter 1989; Woodman, Sawyer, and Griffin 1993). To ensure that all information is considered, organizations must provide forums for information exchange and discussion. This communication may occur through liaison positions, integrator roles, matrix organizations, face-to-face contact in meetings and on task forces, or utilization of information technology to create organizational bulletin boards on topics such as competitive activity or technology development. The more uncertain the problem or opportunity, the more desirable it is to have higher frequency and informality in communication patterns (Gupta and Govindarajan 1991; Jaworski 1988).

Figure 1 illustrates the organizational learning process and the boundary that constrains learning to the adaptive variety. The arrows indicate that generative learning requires knowledge development to reach beyond the learning boundary for information or new ways of interpreting information. We do not include behavior change as an element in

²Devil's advocacy uses an individual or subgroup that is formally charged with critiquing or challenging a proposed course of action. In contrast, a dialectic uses a structured debate on the merits of a plan and a counter-plan before making a strategic decision. The benefits of the dialectic are in its presentation and debate of the assumptions underlying the proposed courses of action.

FIGURE 1
The Process of Organizational Learning



the learning process, though some argue that meaningful learning has occurred only when there is behavior change (e.g., Garvin 1993). It is possible, however, that new knowledge confirms what was already suspected or changes managerial perspectives (Menon and Varadarajan 1992). Consequently, behavior may not change, but may be pursued more confidently as a result of the new knowledge, or the stage may be set for some future behavior change to occur (Sinkula 1994). Whether behavior change is actually part of the learning process or a separate and distinct activity is less important than recognizing that, in the long-term, behavior change is an essential link between learning and performance improvement (Fiol and Lyles 1985).

The Influence of Knowledge on Behavior

Behavior change is the link between organizational learning and its ultimate objective, performance improvement. There are three ways that learning can influence organizational behavior (Menon and Varadarajan 1992). First, action-oriented use is the direct application of knowledge to solve a problem. Second, knowledge-enhancing use influences managerial perspectives on problems, but is less likely to change behavior directly. For example, knowledge-enhancing use may provide the foundation, through the mechanism of organizational memory, for revolutionary behavior change (i.e., generative learning) at some point in the future. Third, affective use increases satisfaction or decreases dissonance with a change that already has been made. Consequently, we believe that it is incorrect to expect direct and immediate behavior change on the basis of new knowledge. The three types of knowledge-use form a continuum, from direct to indirect, of the effects of organizational learning on behavior change. We now consider the final link in the learning process, the translation of learning into competitive advantage and superior performance.

Organizational Learning and Competitive Advantage

In examining the sustainability of competitive advantage, Williams (1992; see also Achrol 1991) found that all industries undergo substantial change, whether driven by customers, competitors, or technology suppliers. This change creates continuous pressure for businesses to augment their

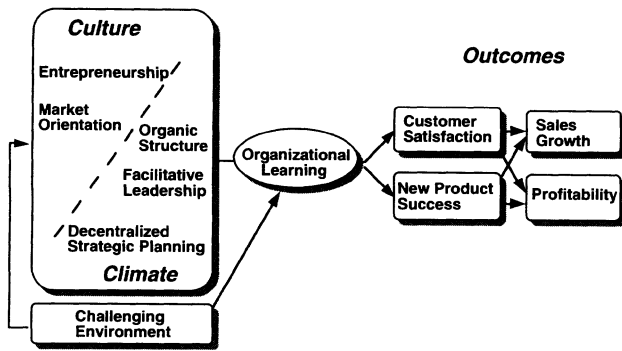
products and services to maintain or increase their value to customers (e.g., Levitt 1980), because no customer benefit is safe from being matched or exceeded by competitors (e.g., Bhide 1986; Ghemawat 1986; Williams 1992). Thus, it is no surprise that comments, such as "The ability to learn faster than your competitors may be the only sustainable competitive advantage" (DeGeus 1988, p. 71), have been frequently paraphrased by executives and scholars alike (e.g., Day 1994b; Dickson 1992; Nonaka 1991; Stata 1989).

What are the necessary conditions for a specific configuration of culture and climate to produce competitive advantage and superior performance? An organization has a foundation for sustained competitive advantage when it possesses skills or resources that (1) provide superior value to customers, (2) are difficult to imitate, and (3) are capable of multiple applications (Barney 1991; Day 1994b; Day and Wensley 1988). First, an organization provides superior value to customers when its culture and climate foster behaviors that lead to improvements in effectiveness or efficiency, which, in turn, provide additional benefits or lower prices for customers (Day and Wensley 1988). Second, imperfect imitateness might be the product of a socially complex organizational environment that is difficult for competitors to understand and emulate (Barney 1986, 1991). Finally, when an organizational system provides unique insight into opportunities in new or existing markets, it is capable of multiple applications (Hamel and Prahalad 1994).

Organizational learning is valuable to a firm's customers in this context because it focuses on understanding and effectively satisfying their expressed and latent needs through new products, services, and ways of doing business (Day 1994b; Dickson 1992; Sinkula 1994). This should lead directly to superior outcomes, such as greater new product success, superior customer retention, higher customer-defined quality, and, ultimately, superior growth and/or profitability.

Furthermore, effective organizations are "loosely coupled" (Pfeffer and Salancik 1978; Weick 1979) with their environments because there is a "buffer" between the organization and the environment that enables them to avoid a reactionary response to every event. A learning culture is just such a buffer in three different ways. First, learning, particularly generative learning, is typically forward-looking, which reduces the frequency and magnitude of major shocks (Day 1994a, b; Sinkula 1994). This also helps to reduce the impression of an environmental complexity that could cause strategic paralysis. In other words, the perceived complexity makes it too difficult for decision makers and learners to map their environment (March and Olsen 1975). Second, because learning organizations have close and extensive relationships with customers, suppliers, and other key constituencies, there is a cooperative attitude that facilitates mutual adjustment among them when the unexpected occurs (Webster 1992). Finally, because of its inherent flexibility, the learning organization is able to quickly reconfigure its architecture and reallocate its resources to focus on the emergent opportunity or threat. An inability to learn and adapt in changing conditions forced companies such as GM,

FIGURE 2
The Learning Organization



IBM, and Sears into their recent predicaments (Loomis 1993).

Thus, we concur with Day (1994a), who states that a superior ability to learn is (1) critical because of the acceleration of market and technological changes, explosion of available market data, and importance of anticipatory action; and (2) a competency-based source of competitive advantage because of its complexity, usefulness (for numerous activities from product development to customer service), and difficulty to imitate. As we describe the characteristics of a learning organization in the subsequent section, its complexity and imperfect imitateness as a source of sustained competitive advantage will become apparent.

Culture and Climate in the Learning Organization

Following Deshpande and Webster (1989), we distinguish between culture and climate in describing the organizational characteristics that comprise the learning organization. Culture is the deeply rooted set of values and beliefs that provide norms for behavior in the organization (e.g., Deshpande and Webster 1989; Schein 1990). Climate describes how the organization operationalizes its culture, the structures and processes that facilitate the achievement of the desired behaviors (e.g., Deshpande and Webster 1989; Schein 1990). It is important for the organization's culture and climate to be complementary, because it is difficult to develop and sustain appropriate behaviors if the corresponding organizational values are not in place and, conversely, values are difficult to sustain if the appropriate incentives and examples do not exist (Day 1994a; Schein 1990). Thus, there is a synergistic relationship among the elements of culture and climate that maximizes learning and its benefits.

Figure 2 illustrates the five critical components of the learning organization—the two key elements of culture: Market orientation and entrepreneurship; and the three elements of climate: Facilitative leadership, organic and open structure, and a decentralized approach to planning, that we suggest have a synergistic influence on learning and performance. We provide a dashed line to separate culture from climate to illustrate that this demarcation is ambiguous (for example, Deshpande, Farley, and Webster (1993) view lead-

ership as an element of culture, whereas we view it as an element of climate). However, significantly, culture and climate must reinforce each other. We describe these five components and their influence on organizational learning in the subsequent sections.

Market Orientation

Market orientation is the principle cultural foundation of the learning organization. We draw on several earlier definitions of market orientation (Deshpande, Farley, and Webster 1993; Kohli and Jaworski 1990; Narver and Slater 1990; Shapiro 1988) to define it as the culture that (1) places the highest priority on the profitable creation and maintenance of superior customer value while considering the interests of other key stakeholders; and (2) provides norms for behavior regarding the organizational development of and responsiveness to market information. Our purpose is to highlight the behaviors encouraged by a market orientation that affect organizational learning.³

Kohli and Jaworski (1990), Day (1994a, b), and Sinkula (1994) argue that market orientation, as an overall organizational value system, provides strong norms for sharing of information and reaching a consensus on its meaning. Day (1994a, p. 43) elaborates: "A market driven culture supports the value of thorough market intelligence and the necessity of functionally coordinated actions directed at gaining a competitive advantage." Because of its external emphasis on developing information about customers and competitors, the market-driven business is well positioned to anticipate the developing needs of its customers and respond to them through the addition of innovative products and services. This ability gives the market-driven business an advantage in the speed and effectiveness of its response to opportunities and threats. Thus, a market orientation is inherently a learning orientation.

However, a market orientation may not encourage a sufficient willingness to take risks. For example, a substantial danger for many businesses that perceive themselves to be market oriented lies in the "tyranny of the served market" (Hamel and Prahalad 1991, p. 83). This danger is the result of narrowly focusing market intelligence efforts on current customers and competitors, thus, ignoring emerging markets and/or competitors (e.g., Argyris 1994). In addition, Hayes and Wheelwright (1984) and Hamel and Prahalad (1994)

³Whether market orientation means a specific set of organizational values or a specific set of behaviors has not been clearly resolved (Day 1993). For example, Deshpande and Webster (1989), Day (1993), and Deshpande, Farley, and Webster (1993) describe market orientation as a form of culture. In contrast, Kohli and Jaworski (1990, p. 1) describe it as "the implementation of the marketing concept," which is a behavioral definition. In their empirical study, Narver and Slater (1990, p. 21) describe market orientation as the "culture that most effectively and efficiently creates the behaviors for the creation of superior value for buyers." They measure the extent of market orientation through the behaviors that are the manifestations of those values. We perceive market orientation as a culture and believe that developing a fundamental understanding of organizational learning requires the examination of other cultural values and the climate (i.e., the routines and behaviors that are rewarded and supported) that enhances it (Deshpande and Webster 1989).

argue that a market orientation can limit a company's focus to only the expressed needs of customers and, therefore, only adaptive learning. Thus, such a company will emphasize product-line extensions for its current customers, rather than pursue a deep understanding of the latent needs of current and new customers and, hence, innovative new products and opportunities in new markets.

Another concern is that, according to common definitions (Day 1994a; Deshpande, Farley, and Webster 1993; Kohli and Jaworski 1990; Narver and Slater 1990; Shapiro 1988), the primary focus of a market orientation is on creating superior customer value, which is based on knowledge derived from customer and competitor analyses. A business must be careful not to underestimate the potential contributions of other learning sources, such as suppliers, businesses in different industries, consultants, universities, government agencies, and others that possess knowledge valuable to the business (Achrol 1991; Dickson 1992; Kanter 1989; Webster 1992). Furthermore, an organization with market orientation may not see threats from non-traditional competitors, such as when Price Club, on the basis of its capabilities in logistics, overlooked the possibility of Wal-Mart entering the wholesale club market (Stalk, Evans, and Shulman 1992).

Consequently, a narrow construction of market orientation could lead to learning only within traditional boundaries. To be a powerful foundation for a learning organization and provide the opportunity for generative learning, the scope of market orientation must include all stakeholders and constituencies that (1) possess, or are developing, knowledge that has the potential to contribute to the creation of superior customer value or (2) are threats to competitive advantage. The conception of "market" should be broadened to encompass all sources of relevant knowledge and ideas pertaining to customers and customer value creating capabilities.

Entrepreneurship

It could be argued that a market orientation, with its focus on understanding latent needs, is inherently entrepreneurial. However, we believe that entrepreneurial values must be made explicit. A culture that values entrepreneurship and innovation provides the environment in which learning from exploration and experimentation is most likely to take place (Hamel and Prahalad 1991; Quinn 1985; Sykes and Block 1989). Entrepreneurial cultures are often characterized as valuing traits, such as high tolerance for risk (Sykes and Block 1989), proactiveness (Naman and Slevin 1993), receptivity to innovation (Burgelman 1985; Kanter 1989), and active resistance to bureaucracy (Kanter 1989; Mintzberg 1991; Quinn 1985). These traits are strongly associated with (1) knowledge acquisition through exploration, (2) challenging assumptions to create generative learning, and (3) the rapid development of new behaviors to leverage learning.

Entrepreneurial values support the creation of new businesses within the existing business and the renewal or revival of on-going businesses that have become stagnant or in need of transformation (Schendel 1990). The creation and/or

revival of businesses can be accomplished through the development of new products, the reformulation of existing ones, the creation of new manufacturing methods or distribution channels, or the discovery of new approaches to management or competitive strategy (Stevenson and Jarillo 1990). Schumpeter (1934) observed that entrepreneurial firms out-compete other firms and are able to earn excess profits, in the short-term. However, the entrepreneur's innovations eventually will be imitated, and his or her profits will return to the normal level. Hence, the entrepreneur must use the profits from the earlier innovation to pursue additional innovations. Successful innovations occur when entrepreneurs recognize a gap between what the market needs and what is offered and successfully direct resources toward filling that need. Although some of these opportunities may be uncovered through chance, firms with a history of successful innovation continuously collect and evaluate information that leads to the identification of opportunities (Jacobson 1992).

For example, a fundamental entrepreneurial activity is not only to create products ahead of competitors but also to create them ahead of the recognition of an explicit need by customers, by focusing on the customers' latent needs (Brown 1991; Hamel and Prahalad 1991). This is obviously a high risk activity, particularly when product innovations are often copied by competitors within 9 to 15 months (Ghemawat 1986). To minimize the risk and maximize learning, successful innovators frequently work intensively with lead customers (Von Hippel 1986), undertake numerous low-cost market experiments (Hamel and Prahalad 1991; Kanter 1989), or continuously experiment through ongoing quality or cost-reduction programs (Garvin 1993). To ensure understanding of the causes of success or failure, innovators subject these activities to such systematic analysis (Garvin 1993; Hamel and Prahalad 1991) as the "Five Why's" (Womack, Jones, and Roos 1990, p. 57) or Deming's "Plan-Do-Check-Act" process (Garvin 1993). Systematic analysis reduces the chances that the organization will move too quickly to the next experiment without reaping the benefits of the current program (March 1991) and increases the likelihood of a shared interpretation of the meaning of the experience, which will improve the prospects for coordinated action leveraging the learning.

Coupling a market orientation with entrepreneurial values provides the necessary focus for the organization's information processing efforts, while it also encourages frame breaking action, thus greatly enhancing the prospects for generative learning. As Webster (1994, p. 14) states: "[M]anagement must develop a broader concept of organizational culture that focuses the firm outward—on its customers and competitors—and creates an overwhelming predisposition toward entrepreneurial and innovative responsiveness to a changing market." The challenge is to create the climate in which market-oriented entrepreneurship can flourish, a topic to which we now turn.

Facilitative Leadership

American business has long had a fascination with charismatic leaders who are forceful commanders. Perhaps Harold

Geneen, the former Chief Executive Officer of ITT, who almost single-handedly ran a highly-diversified, global conglomerate to the enrichment of his shareholders, best typifies that management style (e.g., Pascale and Athos 1981). After his retirement the empire crumbled, and his successor, who tried to emulate his style, was unable to cope with the business's extraordinary complexity. In contrast, Jack Welch, the Chief Executive Officer of General Electric, has been very successful at empowering his management and executive staff with managing their own businesses, and his philosophy is summarized in his commitment "to take out the boss element" (Stewart 1992, p. 474).

A complex environment calls for a complex style of leadership and a transformational or facilitative leader. Such leaders can raise the awareness of colleagues, clients, and others about issues of importance; arouse or alter the strength of values that may have been dormant or subverted; and foster a climate in which "inquiry and commitment to the truth are the norm, and ... challenging the status quo is expected," (Senge 1990, p. 172). Such leaders encourage individuals to break through learning boundaries (Bass 1985). Ultimately, they motivate their people to do more than what was expected of them

Of course, many of the traditional leadership tasks are as relevant today as ever. Clearly, the leader must establish a motivating vision for the organization (Senge 1990). A well-crafted vision communicates norms for behavior and provides guidance for the type of knowledge to be pursued. "Effective learning is purposeful and should be related explicitly to an organization's mission. Unless learning efforts are guided by clear purposes, the organization risks [becoming] skilled at many things, but expert at none" (Wajner 1993, p. 196). Hamel and Prahalad (1994, p. 73) prefer the term "foresight" to "vision" because foresight is "based on deep insights into the trends in technology, demographics, regulation, and lifestyles that can be harnessed to rewrite industry rules and create new competitive space." A clearly articulated vision is one way in which learning organizations manage the tension between the exploration and exploitation paths to effective learning.

Facilitative leaders focus on developing the people around them. They are adept at motivating people to want to learn. Senge (Meen and Keough 1992) suggests that a leader's objective is to create a "demand pull" system in which people in the organization want to learn more. Therefore, a leader must abandon the role of expert whose job it is to teach subordinates the correct way to do things. Instead, he or she must act as a coach, helping those in his or her organization to surface assumptions and understand patterns and relationships among people, organizations, and events. By understanding the nature of these systematic relationships, subordinates take responsibility for learning and make better decisions with less interference from top management (Senge 1990).

To encourage individual learning and sharing of experiences, organizations such as Motorola, General Electric, and Banc One have established their own in-house "universities" to promote a learning environment. Leaders in learning organizations expect employees to take company time to pur-

sue knowledge that is outside of the immediate scope of their work. They encourage lateral, cross-functional transfers that force employees to learn and develop new skills and share their existing skills and perspectives with new colleagues (Nonaka 1991). The result is greater sharing of information and potential for challenging tradition, that is, the learning boundary, by bringing different points of view into an organization.

Facilitative leaders are frequent and effective communicators within and outside of the organization. They constantly articulate and reinforce the organization's vision through their speech and actions. They share information about business trends and competitors' activities to maintain a competitive focus. They freely provide operational information about things such as productivity, inventory, and quality to share success and quickly identify problems. They also keep the workforce informed about the company's overall performance.

Finally, leaders must take a key role in "unlearning" traditional but detrimental practices. By surfacing and challenging their own assumptions and mental models (e.g., Senge 1990), they encourage employees to do the same. General Electric uses "Workout" sessions to "challenge every single piece of conventional wisdom, every book, every rule" (Potts 1992, pp. 452-53). In these sessions, executives, including Jack Welch, take the floor of GE's management development center to respond to tough questions from managers who are taking classes at the center. This has created an environment in which difficult issues can be raised without fear of retribution and in which executives must respond to problems with plans and solutions (Potts 1992). The ability to lead unlearning could be the single most important role of the chief executive officer for breaking through the learning boundary to encourage generative learning.

Organic Structure

Burns and Stalker (1961) were the first to suggest that high performing firms, competing in complex and dynamic industries, adopt an "organic form," namely, an organizational architecture that is decentralized, with fluid and ambiguous job responsibilities and extensive lateral communication processes. Members of these organizations, both internal and external, recognize their interdependence and are willing to cooperate and share information to sustain the effectiveness of the organization (Miles and Snow 1992). The necessity of effective information sharing in the learning organization demands that systematic or structural constraints on information flows be dismantled (Woodman, Sawyer, and Griffin 1993). Gupta and Govindarajan (1991) conclude that high environmental uncertainty requires high frequency and informality in communication patterns among organizational units for effective diffusion of knowledge.

Mintzberg (1991) suggests grouping experts in functional units for housekeeping purposes but deploying them in project teams for specific tasks, as well as relying on teams, task forces, and integrating managers to encourage mutual adjustment within and between the teams. Under these conditions, information is shared and decisions are made flexi-

bly and informally to promote innovation and creativity. As standardization and bureaucratic routines are precluded as coordinating mechanisms, coordination becomes the responsibility of experts rather than individuals with hierarchical power. Consequently, the organization must make use of an extensive set of liaison devices, such as cross-unit committees, integrator roles, shared data bases, and matrix structures (Gupta and Govindarajan 1991) to encourage informal information sharing and discussion. The downside of this organizational form is the personal frustration that arises from the ambiguity and uncertainty of the work environment. Furthermore, the need for frequent and extensive communication exacts a high price in the extent of individual involvement, the anxiety created, and length of time required to reach a decision (Mintzberg 1991).

A recent study of high-tech firms in Silicon Valley (Bahrami 1992) illustrates how the nature of the organic structure continues to evolve to address the dual needs for structure and autonomy. These firms rely on a relatively stable substrate of formal structure supplemented by an overlay of temporary project teams and multi-functional groups, thus, achieving the efficiency of a functional organization and the market effectiveness of a divisional form (Miles and Snow 1992). They use the temporary teams for a wide range of activities, including new product development, strategic assessments, and formation of new management processes. They also make extensive use of information technology, such as electronic mail and shared data bases, which has, over time, reduced the need for the traditional middle management role of information conduit. The benefits include rapid awareness of and response to competitive and market change, more effective sharing of information, and a reduction in the lag between decision and action.

Another important dimension of the learning organization's architecture is its openness to external "learning partners." Organizations learn from customers, distributors, suppliers, alliance partners, universities, and others. When managers treat those information exchanges as independent transactions, they limit the value of the exchange. Conversely, the development of long-term, stable relationships (e.g., Glazer 1991; Miles and Snow 1992; Mohr and Spekman 1994; Ruekert, Walker, and Roering 1985) with "learning partners" leads to information sharing that benefits both partners. These partnerships provide access to a greater number of information sources, force the development of mechanisms that facilitate the sharing of information, and offer alternative perspectives on the meaning of critical information that could lead to generative learning.

Essentially, learning organizations are moving from strict adherence to Porter's (1980) model in which the strength of competitive forces dictates strategic choice to the recognition that the power of collaborative forces also is a major influence on firm strategy and performance (e.g., Glazer 1991; Kanter 1989). As Webster (1992, p. 1) notes, "New organization forms, including strategic partnerships and networks, are replacing simple market-based transactions." Organizational learning is a function of the form and strength of the organization's interdependence with its learning partners.

Decentralized Strategic Planning

The role of planning in the learning organization is much debated, but not clearly understood. Although the traditional, rational-comprehensive model of strategy formulation (e.g., Braybrooke and Lindblom 1970) has been criticized for its questionable assumptions of rationality (Cyert and March 1963) and cognitive capacity (Simon 1957), even under conditions of relative stability, the model is clearly unrealistic during dynamic turbulent conditions. Mintzberg (1994, p. 207, 403) in his exhaustive review and critique of strategic planning concludes, "[P]lanning works best when it extrapolates the present or deals with incremental change within the existing strategic perspective; it deals less well with unstable, unpredictable situations ... formalized planning makes no sense in a dynamic environment." The polar alternative allows strategy to emerge in response to an evolving environment (Mintzberg 1987). When the rational-comprehensive model is formal and proactive, the emergent model appears to be informal and adaptive.

Hart (1992), in his review of the strategy-making process literature, concludes that, in complex and heterogeneous environments, an iterative participative approach is necessary to gain adequate knowledge and commitment from key stakeholders and that strategy should be developed through a process of "bottoms-up intrapreneurship" in which the role of top management is to encourage experimentation and nurture the development of the highest potential ideas. Thus, Mintzberg (1987) and Hart (1992) seem to agree that learning-based strategies are most effectively formed, not formulated, through a relatively unstructured, emergent process in which top managers primarily provide general guidance.

In the learning organization, planning is guided by a stable vision and operationalized through a flexible, responsive overlay of task-oriented planning teams. The motivating vision is grounded in a sound understanding of the market, guides the business' competitive advantage efforts, and is communicated continuously throughout the organization. The shared vision sets the broad outlines for strategy development and leaves the specific details to emerge later. A robust vision enables the organization to learn and adapt (Day 1990; Mintzberg 1994; Prahalad and Hamel 1994; Senge 1990).

Another element, and one overlooked in many planning systems, is the development of a process for the critical assessment of key assumptions about the business and its environment. These assumptions or mental models (e.g., Day 1990; Senge 1990) are a powerful influence on behavior because they shape perceptions of information, causing the organization to accept some information and reject other information that does not fit with the dominant model of the environment and the organization's role therein. Using the "strategy as stretch" metaphor, challenging traditional assumptions forces the business to plan beyond its core competencies to avoid being trapped by core rigidities (Hamel and Prahalad 1994; Leonard-Barton 1992).

The final piece of the planning system is the ability to adapt specialized planning subsystems to the evolving needs of the business (Mintzberg 1994; Quinn 1978) and integrate

the results of those planning activities into a strategic plan for the business. Planning at the subsystem level is critical because this is the level at which systems of cause and effect can actually be observed. Planning at too high a level introduces too many unrelated influences into the effort to be able to understand the nature of key relationships in the system (Senge 1990).

As previously discussed, an example of a critical planning subsystem that is highly dependent on organizational learning is the new-product-development process. The same type of approach may be applied to planning subsystems concerned with quality improvement or acquisitions. For example, Analog Devices formed 15 corporate-wide product, market, technology task forces that produced nine initiatives for change that, in turn, became the company's strategic plan (Stata 1989). Thus, the "top management planning system" is not a source of innovative ideas regarding products, markets, or technologies; instead it plays a powerful role in guiding the independent and chaotic activities of a wide variety of seemingly unrelated systems to produce a coherent organizational strategy (Mintzberg 1994; Quinn 1985; Stata 1989). The effectiveness of the planning process is a direct function both of each subsystem's ability to correctly identify key interrelationships and leverage points (Senge 1990) to manage the conflict resolution process (Cosier and Schwenk 1990) and of the top management team's ability to integrate the decisions generated by the subsystems (Eisenhardt 1989).

Conclusions and Implications for Research

Learning organizations are guided by a shared vision that focuses the energies of organizational members on creating superior value for customers. These organizations continuously acquire, process, and disseminate throughout the organization knowledge about markets, products, technologies, and business processes. They do not hesitate to question long held assumptions and beliefs regarding their business. Their knowledge is based on experience, experimentation, and information from customers, suppliers, competitors, and other sources. Through complex communication, coordination, and conflict resolution processes, these organizations reach a shared interpretation of the information, which enables them to act swiftly and decisively to exploit opportunities and defuse problems. Learning organizations are exceptional in their ability to anticipate and act on opportunities in turbulent and fragmenting markets.

We believe that a learning architecture satisfies the requirements for competitive advantage because it is well positioned to provide superior value to customers, complex to develop, difficult to imitate, and appropriate in a turbulent and dynamic environment. It is important to recognize that organizational learning is the product of synergies among the described management practices. By itself, an organic structure could provide only inefficiency and disarray. Market orientation without an entrepreneurial drive might focus the organization's efforts too narrowly and, at best, produce adaptive learning. Thus, in isolation, the contribution of any

one or two of these organizational features may be minor. The challenge for managers is to put all of the pieces together in a cohesive manner.

The marketing function has a key role to play in the creation of a learning organization. Because of its external focus, marketing is well positioned to appreciate the benefits of market-driven learning and be the lead advocate of the market oriented, entrepreneurial values that constitute the culture of the learning organization. Marketers must model learning behavior by seeking information from outside and inside the organization. They must share information freely with others in the organization and with key suppliers and customers. They must also seek the input of those who will influence or be influenced by strategic decisions. In addition, marketers must respect the perspectives of others in the organization and recognize that early consensus might be counterproductive. Moreover, they must accept the possibility that a fresh perspective may lead to breakthrough thinking about an opportunity or problem. In short, marketers and any other agents of change must lead by (1) involving all factions in learning oriented activities, such as intelligence gathering regarding customers, and (2) demonstrating the benefits that are the results of these activities.

Marketing strategy should be learning-driven as well. Marketers must continuously maintain a clear and unbiased understanding of the product and service attributes that customers value. To identify latent needs, they must augment traditional market research with market experiments. Innovative promotional media, channels of distribution, and pricing structures will become more important in this era of fragmenting markets.

Given the limited empirical evidence regarding organizational learning, the assessment of its benefits and the development of a clear understanding of the processes of organizational learning and the management practices that facilitate or hinder organizational learning should be a high priority (e.g., Marketing Science Institute 1993). The relevant literature is extremely broad, drawing on work from sociology, psychology, and anthropology, as well as from the business disciplines. Integrating this diverse work and establishing an agenda for research on organizational learning and the learning organization is a monumental task. We restrict our comments to issues of relevance for market management researchers.

Because the evidence regarding the benefits of and antecedents to organizational learning is primarily anecdotal, we see the need for both fine- and coarse-grained research to answer important questions. Coarse-grained research might focus on testing broader questions regarding organizational learning, such as (1) Is organizational learning associated with superior performance? (2) Does generative learning lead to positions of sustainable competitive advantage? and (3) Does the framework of management practices described here lead to superior learning and performance? Coarse-grained research might be extended to consider environmental moderators of the relationships or whether different learning styles are appropriate for different strategy types.

A major challenge for this research stream will be to develop valid measures of learning outcomes. How does a per-

son assess whether an organization has actually learned? One approach would be to use indirect measures of learning, such as patent activity, new product introductions, or sales growth as surrogates. Valid measures of the dependent variable are essential to research that has normative implications. Jaworski and Kohli (1993) have facilitated research on organizational learning by developing measures of the effectiveness of the information acquisition, intelligence dissemination, and organizational responsiveness stages of the learning process, which are themselves measures of intermediate outcomes.

An important area for further research is to understand how features of the organization's culture and climate facilitate those processes, as well as determine whether they lead to superior learning outcomes. Because many of the organizational constructs we discussed have operational measures (e.g., market orientation, Narver and Slater 1990; entrepreneurship, Naman and Slevin 1993; organic structure, Miller 1987), testing this type of framework through survey research as suggested by Deshpande and Webster (1989) could proceed rapidly once the appropriate measures of organizational learning have been established. Other learning constructs that have yet to be measured include adaptive and generative learning competency (Senge 1990), unlearning (Daft and Huber 1987), and exploration versus exploitation (March 1991).

Fine-grained research, focusing on understanding individual and group learning processes, is also critical. For example, Suajan, Weitz, and Kumar (1994) employed survey methodology to study the effect of a learning orientation on salesperson selling effectiveness. Numerous writers (e.g., Argyris 1991; Levitt and March 1988) have pointed out obstacles to learning and behavior change. Research on strategies for overcoming obstacles to learning and strategies for reaching consensus without sacrificing constructive disagreement would help to understand and improve the quality of organizational learning. Glazer (1991) suggests that understanding the profile of the successful manager in an information-intensive, learning organization is an important topic for further research. Another important issue is the role of information technology in the learning organization. Information technology has many potential elements, such as shared data bases, communications networks, and decision-support systems (Day 1994), that may facilitate information dissemination and organizational memory, but that may also provide too much focus on the served market and, thus, become a core rigidity. How, then, can an appropriate balance be achieved?

We agree with the many scholars and executives who have expressed the sentiment that the ability to learn faster than your competitors may be the only sustainable source of competitive advantage. The research challenge is to validate that sentiment and develop knowledge about specific management practices and the way they should be configured to provide solid guidance to managers in their efforts to build market-oriented learning organizations.

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