

Knowledge Management and Core Competencies: Process Improvement Potential?

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Introduction

In the 1970s, Michael Porter developed frameworks for business strategy called force analysis which helped managers to see external opportunities and competitive threats. Dubbed the “environmental school,” this strategy approach dominated management thinking at that time.¹ A criticism of this ends—ways—means approach to strategic planning questioned whether deciding on a strategy before deciding on the means to implement that strategy was viable because it made managers develop plans and then seek capabilities, rather than building capabilities and developing plans for exploiting them. Hiroyuko Itami in *Mobilizing Invisible Assets* also stressed building on strengths or invisible assets which were potentially profitable properties of companies that do not show up on a balance sheet: customer loyalty, technical expertise, reputation, and brand name.² Successful strategy should start with finding ways to exploit these assets, the most enduring source of competitive advantage. This thinking gave rise to the “resource based school” during the 1980s.

The resource based believers argued that sustainable competitive advantage was based on specialized resources used to gain a privileged market position. An organization’s history and experiences, its strengths and capabilities, and its character and culture contributed to its strategy. Thus, resource based thinkers hold internal attributes and capabilities as a more stable anchor than the demands of a volatile marketplace. Managers, then, can appreciate competencies and exploit them. But do they? The traditional SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats) has emphasized developing tools for analyzing environmental opportunities and threats much more than developing tools for analyzing internal strengths and weaknesses. Human resources include the experience, knowledge, judgment, and wisdom of people in an organization. Organizational resources include history, organizational culture, relationships and trust involved in work groups, plus the formal reporting structure, management control systems, and compensation policies. When a firm’s resources and capabilities are valuable and socially complex—things like reputation, friendship, teamwork, trust, culture—these resources provide sustained competitive advantage for firms wise enough to exploit them.

An important strategic emphasis of the 90s, then, is the importance of resources and competencies to success. A problem is that resources and competencies are hard to isolate, hard to measure, hard to manage. Most organizational competencies start with individuals, who have skills, knowledge, intuition and can develop expertise. When individuals talk with others in their communities of practice, collective competencies develop and procedural knowledge develops. A process is formed, and an organizational competence develops. Competencies, then, are integrated task performance routines that combine resources needed for competitive advantage.

2. Knowledge Management

Moving know how from the individual to the collective level presents difficulty. The authors of *Enabling Knowledge Creation* offer these observations about creating knowledge and diffusing it throughout organizations.³ Converting knowledge occurs in four patterns:

- 1) from tacit to tacit through socialization (observing and imitating without language);
- 2) from tacit to explicit through externalization (creating concepts, metaphors, “what if. . .”);
- 3) from explicit to explicit through combination (exchange between people in meetings, conversations, and document exchange or reconfiguring existing knowledge by resorting or recategorizing data);
- 4) from explicit to tacit through internalization (after learning by doing and listening to oral stories or retold experiences, people build new thoughts into their own tacit knowledge).

Westerners favor explicit knowledge—hard data in documents, databases, and standardized work procedures—easily communicated and shared. Japanese companies foster tacit knowledge—rooted in individual action, experience, and values based on subjective insights and intuitions—difficult to share without a great deal of personal interaction, group work, team activities, and spending time together at work and on weekends.

The authors advise suffusing the organization with care to positively impact knowledge creation. Caring managers must understand the needs of the group or the company and integrate these needs so that people can learn and experiment on their own while still contributing to the common good. Caring is associated with women’s styles of leadership and soft skills in management. Women use cooperative styles and are good at networking, mentoring, and team building—all the signs of a caring organization and an enabling context for knowledge creation. However, caring comes naturally to all human beings. Caring develops mutual trust, empathy, leniency in judgment, access to help, and establishing courage.

A key issue for management is to create a “tight-loose” process for competence diffusion. Communities of practice need to be allowed freedom and variation for learning to take place, while requiring enough commonality to make sharing possible. Business units should allow enough autonomy to experiment with new methods of task performance and provide organizational unity through shared values and common intents, rather than detailed procedures and strict rules. The task of strategic managers is to integrate specific competencies into an effective whole and leverage them as effectively as possible. Providing different but related application opportunities hones the original competencies and enriches them through responding to new needs or problems. Core competencies help managers to answer the question “What should we do?” Business process owners then answer the question “How should we do it?”

3. Process Improvement

How do organizations create a “tight-loose” process for competence diffusion? Rich Teerlink, retired CEO of Harley-Davidson, relates his experience in a “First Person” feature of *Harvard Business Review*.⁴ He became CFO in 1981 after a group of 13 Harley managers bought the company from AMF. It had a poor reputation for quality and reliability (“Ride a Harley and walk home.”), market share was falling, and Honda and Yamaha were on the scene. Because the organization was under extreme pressure, authoritarian leadership was used for speed and

control. By mid-1980s, the company had new products to offer and had established a communication link with Harley owners, which grew into the world’s largest motorcycle club, Harley Owner’s Group (HOG).

Teerlink became president and COO of Harley-Davidson in 1987 and didn’t have a plan for the company, but felt that “capturing the ideas of our people—all the people at Harley—was critical to our future success.” (p. 45) Rich and his vice presidents looked for a strategy that would “carry everyone forward,” and that involved changing the way employees were treated. They wanted to create an organization in which employees cared about the company, wanted to do better, and would work together to improve performance. They hired Lee Ozley, a consultant, who talked about the psychology of Abraham Maslow. One theory that made sense to H-D managers was that, absent a crisis, people rarely commit to a program imposed on them, but they will commit to a program they help create. In late 1988, H-D asked employees for ideas, concerns, complaints, and visions throughout the company. Seventy leaders from union and management sides crafted a strategic vision for Harley-Davidson. When it was presented to the rest of the company, results were predictable because it called for dramatic change, and change takes time because people’s long-held assumptions and behaviors take time to change.

In March 1989, Rich became CEO and set up an off-site meeting for 60 senior executives to get to know each other and work as a unified team. Guest speakers spoke about change management, and then smaller groups gathered to talk about what they thought could be accomplished. As Rich visited the clusters, he kept seeing “What does Rich want?” written on easels used to record thoughts. He was upset, since he’d been quite clear that the point was not to figure out what HE wanted, but what everyone wanted for the company. He ended the meeting by blasting the whole group for not stepping up to lead the company. Later, he realized his mistake—the groups had not done what he wanted them to do, but they were starting their own process of figuring out what to do. It was only natural to wonder if the boss had a hidden agenda. Rich realized he had to “recalibrate” himself if ensuing meetings were going to succeed.

“Too frequently, we as leaders are trying to satisfy ourselves rather than others.”(p. 48) “The command-and-control model is hard to avoid.” “Transforming a culture takes time.” Rich writes that there are still some people who think they have all the answers at H-B, and people who just bring their bodies to work, but not their minds and their whole selves, but they are fewer. It takes trust on the part of employees and discipline on the part of managers to make an inclusive approach work.

The authors of *Enabling Knowledge Creation* also encourage instilling a vision for knowledge creation in organizations and use this model to start the process. (p. 119)

Questions	Technology	Society	Culture	Political & Legal Norms	Economy
What is the world we live in?					
What is the world we ought to live in?					
What knowledge should we seek & create?					

Where does organizational resistance to change come from? Hammer and Stanton have found that front-line workers, seeing that their jobs will become more interesting and broader, do not resist change. The biggest resistance comes from senior functional executives, division heads, and others in top management ranks. They resent their loss of autonomy and power and are uncomfortable with collaborative managerial styles. Loss of a quarter to half the senior team is not uncommon during changeovers.⁵ Of course, senior managers and others frequently blame individuals for a lack of knowledge or skills, but management systems and practices create more problems than individuals do. Companies spend \$60 billion yearly on management training on subjects such as Total Quality Management (TQM), leadership, and organizational change—fundamentals that are timeless, unchanged and unchanging, but does this change organizational practice? Jeffrey Pfeffer and Robert Sutton, authors of *The Knowing-Doing Gap*, say no.⁶

4. Performance Improvement

After a four-year study of various organizations, these authors contend that most organizations know what to do in theory, but they do not apply this in practice. Knowledge retrieval and codification emphasizes technology and treats knowledge as a tangible thing, while most knowledge is acquired through experience and is often intangible and tacit. “Knowledge management systems rarely reflect the fact that essential knowledge, including technical knowledge, is often transferred between people by stories, gossip, and by watching one another work. This is a process in which social interaction is often crucial.”(p. 18) A study by the Center for Workforce Development found that 70% of workplace learning is informal. Activities in which informal learning occurs include participating in meetings, interacting with customers, supervising or being supervised, mentoring others, communicating with peers, and training others on the job. Tacit knowledge comes from trials and errors that occur while people develop skills, by inexperienced people watching experienced people, and experienced people coaching newcomers. Yet most knowledge management efforts in organizations emphasize technology and the storage and transfer of codified information, such as canned presentations, written reports, and company statistics.

In some organizations studied, talk substituted for managerial action. Once decisions were made, no further steps were taken. Few mechanisms to carry out the agreed-upon actions were set up and no actual implementation of decisions happened. It was as though managers thought that talking, writing, and making presentations were all they ever needed to do. The same held true for mission statements that were written, but not implemented (if management says it is so, then it must be). An interesting finding about smart talk vs. smart action pertained to performance evaluations. We form impressions of other people based on two things: how well they perform by accomplishing tasks and contributing to the organization through their actions, and how smart they seem. If people are articulate and confident, have a good vocabulary and some interesting ideas, they sound smart. Unfortunately, one of the best ways of sounding smart is to be critical of others’ ideas. Intellectual put-downs occur when people seek status, especially in front of senior management. However, if people only critique everything to death—why something won’t work, why something can’t be done, why the present condition, although imperfect, is better than trying something new and actually implementing new knowledge—nothing gets done by the end of the day. These people are dangerous, because they stop things from happening and are not action oriented enough to find ways of overcoming the problems they identify.

An example of “closing the loop” between talk and action and connecting learning with doing is the U.S. Army’s National Training Center. Brigades of 3,000 to 5,000 soldiers go through two-week war games in simulated combat. Nearly 600 instructors follow each brigade through each 18-hour day. After each day of battle, instructors hold “After Action Reviews” to help combatants understand what went right and wrong and how they can do better the next day. They emphasize learning from failure, accepting it as crucial to the process of learning by doing. This process is based on the belief that if you change behavior, then no matter what people are saying or feeling, there will not be a knowing-doing gap. People will know from the doing, and attitudes *follow* behavior. People accept new beliefs as a result of changing their behavior.

Other organizations fail to implement performance knowledge by seeing the present as very much like the past. In these firms, people are hired, socialized, and rewarded for imitating those who came before them. Even when a new problem confronts the organization, people look to past solutions to solve the present problem. An example of the power of precedent is illustrated by the merger of Lockheed Corporation with Martin Marietta. The merged company combined three separate sites into one at a cost of \$700 million in order to save \$3.5 billion in costs over five years. After the consolidation, not a single contract was won because company policy required that bidding be based on a history of similar contracts, even though newer costs were lower. As a result, bids were not competitive. Lockheed-Martin could not take advantage of the cost reductions achieved by the consolidation, because it adhered to a policy that made no sense.

5. Social Forces Affecting Behavior in Organizations

Why do managers make these mistakes? Robert Cialdini, a social psychologist, describes forces affecting behavior. The first is “social proof.” When people are unsure about how they should act, they imitate what others do. Another force that contributes to ineffective practice is “pressure for consistency.” We all want to appear consistent to others, since inconsistency is viewed by others as indecisiveness and confusion. We also try to behave in ways consistent with past actions. This way, we don’t have to gather new information and weigh the advantages or disadvantages of our actions. Managers rely on precedent since revisiting management practices daily is impractical. However, if the situation changes or past actions have produced poor results, relying on the past is troublesome for organizations. Characteristically, people and organizations respond to problems by clinging more tightly to what they know how to do best and what has been done in the past. Moreover, if people do try to respond to external threats, their anxiety interferes with their learning—the “threat-rigidity” effect. An example of this effect was the Atari Corporation in the early 1980s. When demand declined and competition increased, Atari developed outdated video game computer hardware and software, rather than working on an inexpensive computer prototype, very similar to the Apple Macintosh introduced in 1984.

Finally, social psychologists note two more human needs: the “need for cognitive closure” and unexamined, implicit assumptions about behavior in organizations. Cognitive closure pertains to the inclination of most humans to freeze on past knowledge and avoid evidence that disconfirms what they believe. Especially when people have time pressures, are fatigued, or are pushed by significant others, they seek firm answers to questions and avoid ambiguity. People are also trapped by implicit theories of behavior that guide decisions and actions. If the theories are not surfaced, they can’t be refuted with logic or data, so they influence behavior.

For example, an implicit theory of motivation is that without some pressure, people will just take it easy and not do very much, so some organizations use the fear of being fired to ensure diligent work effort. Other theories are that people just can't be trusted, their work must be monitored constantly, and violations must be punished. A fear-based approach to management gains some social approval through the business press which touts the mean, tough, fearsome manager. As an example, "Chainsaw Al" Dunlap was seen for a time by Wall Street as a management genius. His downsizing at Scott Paper led to his appointment as CEO at Sunbeam. His turnaround strategy was characterized thusly: "I don't start with the old foundation....I tear the whole thing down and start over. I rarely see any good in what came before. If it was any good, they wouldn't need me. . . .At Scott, I released 70% of the management team."⁷ Dunlap is now widely discredited due to accounting and performance problems at Sunbeam, having left the company after two years. The lesson learned should be that there won't be much innovation, much learning, or much turning of knowledge into action in climates of fear and distrust.

A final managerial practice which proves counterproductive to performance improvement is that of applying sports analogies to business practices. People in business, especially men, draw on analogies from physical competitions to guide thinking about how work should be organized and rewarded. It is true that in physical tasks, people perform better when racing an opponent. However, business involves complex intellectual tasks rather than physical ones. Racing is fine for routine tasks done over and over again, but tasks that require learning and inventing new ways of doing things require different treatment. The social facilitation effect allows that working around others, especially outsiders who are thought to be judging the work, enhances performance for tasks that are well known and don't require acquiring new skills or novel responses. The social inhibition effect allows that the same conditions lead to worse performance when tasks require attention and complex mental processes. Competition inhibits learning and creativity because people focus their attention on what the competitors are doing and the reactions of the audience for the contest, rather than on how well they are performing.

Interdependence is what organizations should be about. Productivity, performance, and innovation result from joint action, not just individual efforts and behavior. Chester Barnard, an early management writer, advanced, "The willingness of individuals to cooperate with other members of an organization is one the major determinants of organizational effectiveness and efficiency."⁸ Thus, managers should model the right behavior—acting collaboratively, sharing information, and helping others. People in top management positions should have a history of building groups where members cooperate and provide each other mutual assistance.

All too frequently managers want to learn "how" via detailed techniques, behaviors, and practices, rather than learning "why" in terms of philosophy and general guidance for action. Important core assumptions about people should be that they are creative and capable of learning, they are responsible and can be held accountable, they are unique and deserve respect, and they want to make positive contributions to society and enjoy a challenge in doing so. Day-to-day management practices that create and embody a culture that values knowledge and acting on that knowledge build systems of practice that transform knowledge into action. What leaders do and how they spend their time matters.

Bibliography

1. Campbell, A. & Luchs, K.S. (Eds.). *Core competency-based strategy*. Boston, MA: International Thomson Business Press (1997).
2. Itami, H. *Mobilizing invisible assets*. Cambridge, MA: Harvard University Press (1987).
3. Von Krogh, G. Ichijo, K. & Nonaka, I. *Enabling knowledge creation: How to unlock the mystery of tacit knowledge and release the power of innovation*. New York: Oxford University Press (2000).
4. Teerlink, R. Harley's leadership U-turn. *Harvard Business Review*, July-August, (2000).
5. Hammer, M. & Stanton, S. How process enterprises really work. *Harvard Business Review*, November-December, (1999).
6. Pfeffer, J. & Sutton, R.I. *The knowing-doing gap: How smart companies turn knowledge into action*. Boston, MA: Harvard Business School Press (2000).
7. Dunlap, A.J. *Mean business*. New York: Times Books (1996).
8. Kramer, R.M. Cooperation and organizational identification. In J.K. Murnighan (Ed.), *Social Psychology in Organizations: Advances in Theory and Research*. Englewood Cliffs, NJ: Prentice-Hall (1993).

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