

Environment Core Competency

by Bob Ferrone

In an economy where the only certainty is uncertainty, the only sure source of lasting competitive advantage is knowledge. When markets shift, technologies proliferate, competition multiplies, and products become obsolete almost overnight. Successful companies are those that consistently create new knowledge, disseminate it widely throughout the organization, and quickly embody it in new technologies and products.

(Ikujiro Nonaka, Knowledge Creating Company)

A powerful convergence of forces •technological, economic, and societal is now recasting the industries from top to bottom. One place to watch for the warning signals of impending change is in the vocabulary used by successful business leaders. Today, a new breed of world-class companies and leaders are taking over who are better suited to the imperatives of the fourth industrial revolution and the fifth management wave.

Andy Grove, chairman of Intel wrote, in his book *Only the Paranoid Survive* that the challenge in today fast-paced competitive business world is to find ways to survive what he called the •10X• transition. Grove's 10X theory is the key aspect of changes that transition markets almost overnight. Examples of this include the arrival of the desktop computer (PC) and the transformation of the electric utilities. One of the early signals of the new paradigm is coming for contemporary thinkers such as Michael Porter. In the

Harvard Business Review he makes a positive link between environmental protection, resource productivity, innovation, competitiveness and core knowledge.

For many companies, when worldwide competition began to drop the enterprise bottom line, leaders initiated a search for competitive excellence that would give them the strategic and competitive advantage. Many organizations may believe that they have developed models of efficiency, productivity, and quality. However, like a bolt of enlightenment followed by a nearly magical sequence of events, managers who were previously at opposite poles are now in harmony in understanding the competitive nature of the new age environmentalism. Organizations such as Xerox, IBM, and Ford have moved from TQM (Total Quality Management) to TEQM (Total Environmental Quality Management) while expanding their corporate creativity. Xerox, after recognizing that they were on a slippery slide to oblivion in the 1970's and 1980' re-engineered its processes. They developed new approaches to re-use assemblies and parts that helped lead the way for a textbook example of how to reduce cost while improving quality.

Today a tendency is to identify characteristics such as quality products and a good reputation as core competencies when these characteristics are really the result of performing discrete activities. Since the inception of the Baldrige Award, the U.S. Quality award, flagship companies that have won have not performed to expectations as a result of winning. Leaders such as Florida Power and Light have all but disbanded their quality departments. Managers in flagship companies that are undergoing massive change such as IBM and Xerox must have the foresight to heed change more quickly. Sustainable

competitive growth is based on organizational capability to conquer change and being able to transform itself as a system.

World-class organizations are creating strategies that are transforming the very nature of competition. They are overcoming traditional environmental tradeoffs in much the same way that Total Quality Management (TQM) improved quality and productivity. Creative responses are emerging regarding the environment nexus to environmental core competency. In particular, the development of innovative management systems and technologies is giving industry a means of improving its industrial performance and competitive position, while simultaneously reducing the cost associated with environmental compliance. Chaparral Steel has been a locus in innovative management and technology. They compete by constantly improving product and process. After buying rolling milling equipment designed to produce 8-inch slabs, they transformed the equipment to produce 14-inch slabs. This in turn caused the vendor to approach Chaparral to buy back the design. They transformed the annual rates of electric arc furnaces' melt from 250,000 and 500,000 tons of scrap metal, to 600,000 and 1 million tons. Although envisioning technological innovation is relatively easy, the real difficulties lie in the qualitative dimension of competitive advancement in the field of innovative organizational design in which knowledge is the competitive advantage.

The strategic nature of the environmental management systems challenges is firmly grounded in management literature and their significant strategic competitive advantages. Most studies over the past several years have begun to probe the relationship between the modernization of environmental

thinking and the efforts to improve manufacturing productivity and performance. Porter and Van der Linde provided evidence to support this relationship in *Harvard Business Review* (October 1999).

Their findings show that innovative firms are responding to previously unrecognized environmental organizational/technical issues by developing strategies to maximize resource productivity and enhance environmental performance. Organizations do run a danger in implementing an environmental standard such as ISO 14001 as a response to a de facto business strategy and could pass up important business opportunities in the creation of knowledge and organizational alignment.

A recent MIT study also found that there is a relationship between lean production and innovative environmental practices. A comparative study that looked at environmental policy in Europe, Japan, and the United States found the pursuit of both technology innovation and continuous incremental improvements in products/processes creates substantial environmental and economic opportunities. In recent years we have seen many universities, governments, and world-class industries (e.g., Xerox, Ford, IBM, Chaparral Steel, Procter & Gamble) focus their attention on creative responses to environmental concerns.

Given technological innovation in product and process, the speed at which products are introduced, and the competitive trends in industry, organizations are now looking for new ways to achieve a competitive edge in a global marketplace. They are turning inward to their organizations and finding an untapped resource of competitive wealth in disruptive technologies. These

firms are creating economic value across their portfolio of businesses by using the core competency of their organizations in new areas and by transferring competitively important capabilities between organizations. However, simply exploiting strategic assets will not create long-term competitive advantage. In a dynamic world, only firms who can continually build upon new strategic knowledge •faster and more cheaply than their competitor’s will earn superior returns over the long term.

World-class organizations are not constructing their operations in a piecemeal approach to meet the new competitive frontier. They are developing and understanding systems, and the role of a learning organization. Such approaches are comprehensive and must be viewed as an organic whole to be appreciated when closely scrutinized. To complicate matters, such a corporate “ecosystem” constantly regenerates itself. Only by comprehending the whole system can one understand that when fragments of the system are examined (a project, a process), they appear vine-like. Roots trail back to deeply held values and widely observed management practices. It is this interconnectedness that makes such a system difficult to replicate and represents the competitive advantage that a firm holds, despite its product.

Core competency and organizational capabilities are increasingly familiar concepts to top management, and the value of these ideas is being integrated into strategic business development plans. Within multi business companies, the sharing of competencies and capabilities across businesses can clearly provide a justification for a corporate multi business portfolio.

Competencies, however, are fragile; like a vine, left untended, they wither

away or are stretched so thinly they lose their strength. Cultivated too long and too tightly, they turn into rigidities and breed incompetence in responding to new performance opportunities. The scent of conflagration miles away can be dismissed as harmless emissions of neighbors, even if the fiery competitive inferno is advancing rapidly in your direction. Nevertheless, many pressures conspire to keep managers internally focused and comfortable with the status quo long after disquieting signs should have made them edgy.

Competencies develop in different ways within the context of an organization, usually starting at the individual level. There is a tendency to identify characteristics such as quality products, environmental excellence, and good brand reputation as core competencies when these issues are really the result of performing discrete and at times unrelated activities. If managers fail to relate, the underlying premise •that core competency is the building block to good quality •they may fail to leverage their organization competitive strength. World Class organizations do not worship any one dimension, such as quality in the hope that a six-sigma / zero defect will produce business salvation. These approaches tend to be too narrowly focused on reducing the cost of the visible mistakes where world class organizations focus on both the visible and invisible mistakes. They create genetic variety within their organization- like twisting a kaleidoscope and seeing endless new patterns of value that are created from fragmented pieces.

Because skills are an important competitive advantage, business needs to have a strategy for achieving that advantage in the marketplace. Without some kind of advantage in meeting market needs, a business cannot expect to outperform its competitor. The best sources of these advantages are rooted in

superior skills and organizational knowledge. Simply exploiting strategic assets will not create long-term competitive advantage.

Many managers are convinced that foresight is the easy part of the process of implementing a strategy. Quality managers in Toyota had the foresight to understand the auto market that twenty years later became GM's implementation nightmare.

“There is no way to create the future, no way to profit from the future, if one can not imagine it.”

Toyota looked into the future in the 90's and had the vision to see that the next frontier for the auto industry would be Energy efficiency for transportation. They invested their vision and put themselves in a commanding lead for Hybrid's. They have again outpaced the competition in knowledge and design.

A crucial strategic decision in the management of innovation is whether to be a leader or follower. Organizations without the competitive foresight for sustainable growth have left pioneering to world class managers and firms. Some examples of these are: Jack Welch from GE; Soichiro Honda, the innovative leader of Honda; and Bob Galvin, the former chairman of Motorola who infused leadership with the quest for the •total imaginable market.” The quest for these leaders to obtain world class status is marked by the ability to visualize what does not yet exist. Henry Ford pioneered the notion of sustainable design in the auto industry. Ford's work is a road map for moving from TQM to TQEM. In his book, *Today and Tomorrow*, written

in 1926 he said:

“If we waste that bit of coal - which is another way of saying if we do not put it to its full use - then we waste the time and energy of men..... Material costs nothing. It is of no account until it comes into the hands of management.”

Managers of environmental departments need to develop a new vision of how the groups need to be structured so that the competencies do not then turn into core rigidities. Core competence leadership can become lost in many ways. Competencies may wither through lack of funding; become fragmented through divisionalization, particularly when no single manager feels responsible and accountable; or may be lost within a new business start up when measured against an older more profitable business.

The organizations that are enduringly successful will be those that begin as early as possible to define and embody in their activities a unique competitive advantage. In a dynamic world, only firms able to continually build new strategic assets faster and more cheaply than their competitors will earn superior returns over the long term. Only six of the twenty-five largest companies that were listed in 1960 were still listed in 1997. Two of the twenty-five have gone out of business and the others have merged. What is needed is a strategic architecture that provides a blueprint for building the competencies, as Galvin said “the total imaginable market.” IBM and Xerox lacked the foresight of “the total imaginable market.”

Xerox lacked the ability to understand the future economic value of PC’s. When mainframe based information systems were on a growth path, two

innovators came up with the first PC and all of the galactic giants felt that the PC was absurd. In their eyes the PC did not have the computing power necessary to succeed. The industry leaders all concluded that the PC had to fail. This conclusion was reached a few years earlier by Xerox, when its R&D team actually built the first PC. Then came Apple, then Macintosh, and a powerful industry was born.

When the disruptive clouds began to gather on the horizon, IBM with the birth of the microprocessor understood the technology. They wanted to compete but their core competencies became core rigidities and new leaders Intel and Microsoft emerged. Adding fuel to the fire, IBM owned 20% of Intel and sold it in the '80's. If they had foresight, they would have been 30% larger than they are today.

The integration of environmental management systems and the development of core competencies beyond compliance/command-and-control will be a critical business issue for organizations that aim not just to endure but to thrive while building a sustainable growth model in the next century. Organizations can develop new capabilities that will enable them to achieve a competitive advantage by expanding core competencies within the organization.

