

CHAPTER EIGHT

Organizational (Macro) System Development

Complexity thinking suggests that leaders and knowledge workers should take a new perspective on their organizations, develop new competencies, and take different action to create and maintain high-performing organizations.
Alex and David Bennet

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Overview: Organizational System Development (OSD)

This chapter contains a broad overview of insights and perspectives designed to assist the reader in learning to think holistically about his or her organizational responsibilities and contributions. Specialists will learn to see the larger, enterprise level complexity of which they are an important part. Leaders and managers will come to understand their roles more clearly and gain new perspectives leading to opportunities for systematic innovation. Learnership practitioners, in particular, will learn to grasp the comprehensive array of managerial topics and techniques relevant to their roles as adaptive leaders, workgroup facilitators, and project managers.

Organizational System Development (OSD). OSD concerns the long-term development of organizations and enterprises. And, for the learnership practitioner, it represents the integrated *learning* and *leading* required from teams, groups, and other social entities that exist within and external to the organization itself. The goal of high performance satisfies the ontological need for a “sense of purpose”, and is best attained through interdependent understanding and growth in the organization’s strategic direction, operations, and performance subsystems. Figure 8-1 provides an overview of key concepts and relationships to assist the reader in building an OSD mental model as he or she proceeds through this chapter. These major features are:

1. Macro-Cognitive Reasoning. Illustrates the *four social systems* with this chapter’s emphasis being at the organizational macro-level.
2. Organization Direction Subsystem. The *organization direction* subsystem highlights executive level effort in the areas of leadership support, strategic alignment, structural organization, and cultural cohesion
3. Organization Operations Subsystem. The *organization operations* subsystem concerns how work is accomplished by focusing on workforce development, process development, technology utilization, and decision making.
4. Organization Performance Subsystem. The *organization performance* subsystem provides information on measurement data, customer satisfaction, and business/mission results.
5. Macro-System Development. Illustrates the *five reasoning competencies* that can be used to maximize organizational social system development.
6. Information Processing Model. Illustrates a general approach to problem solving and decision-making throughout the organization: Gather and analyze information, develop a strategy and implement it, observe results and take corrective action, if required.

[Author’s Note: A significant point to make at this juncture is that during Part One (Chapters 1 through 6) the Five Learnership Reasoning Competencies have been integrated into a comprehensive Total Knowledge Management (TKM) framework. That “total learning, knowing, and leading” framework has been embedded in the Learnership Integrated Systems

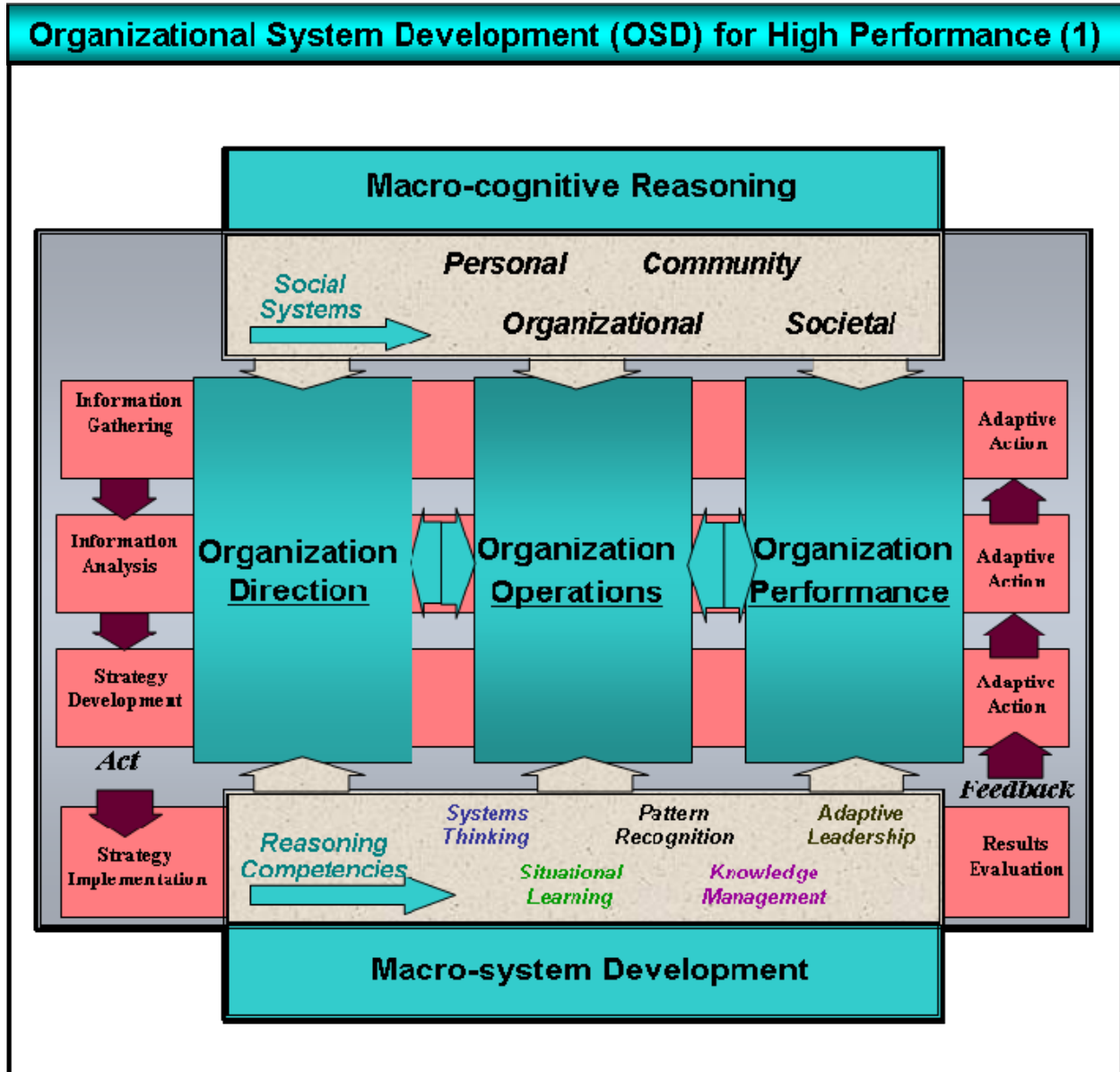


Figure 8-1

Architecture (LISA) and all the principles, practices, and technologies of TKM are conceptually available, and should be appropriately applied, for full organizational social systems development.]

Achieving High Performance. Ideally, the three subsystems operate over time in a mutually reinforcing manner enabling individuals and the organization itself to learn and take action consistent with its purpose and strategy. When this occurs, it can be said that the organization has optimized its capabilities and has achieved a *high performance* end state. High performance is used herein to represent the synergy that occurs when organizational performance measures indicate desired levels of operational efficiency, and effectiveness measures e.g., customer satisfaction, and business or mission results are at all time highs.

Competing for the Future. Authors Gary Hamel and C.K. Prahalad's book on Competing for the Future (1994) sets the standard for managing modern corporations aggressively. They take inventory of the past and current industry leaders, the major management initiatives being employed, and the marketplace performance being achieved. While they view the traditional efforts at organizational improvement in a rather placid manner (the price of near-term sustainability), they regard creating new markets and customer niches as the route to increased profitability and continued market presence and viability. They comment that many of the market leaders of the past have faded from the scene, and that their replacements have become dominant due to their creativity, ability to reframe their industries, and willingness to forget much of their past thinking and establish new strategic architectures with the intuition to reach beyond traditional customer needs and management practices. A couple of examples of the new management thinking and areas for future focus follow (excerpt, pp.2-3). A lack of equal attention to (b) as to (a) indicates a lack of preparedness the future.

1. How does senior management's point of view about the future stack up against that of competitors? (a) Conventional/Reactive, or (b) Distinctive/Far-Sighted
2. Which issue is absorbing more of senior management's attention? (a) Reengineering Core Processes, or (b) Regenerating Core Strategies
3. What percentage of our advantage-building efforts focus on catching up with competitors versus building new advantages new to the industry? (a) Mostly Catching Up to Competitors, or (b) Mostly New to the Industry
4. To what extent am I, as a senior manager, a maintenance engineer working on the present or an architect designing the future? (a) Mostly an Engineer, or (b) Mostly an Architect

Another way of assessing an organization's readiness for the future is to consider whether too much effort is on today's immediate business needs as compared to 5-10 years out in the future. For example, in comparison to today's concern and focus, have the following questions received adequate attention by management? (Excerpt, pp.16-17)

1. Which customers are you serving *in the future*?
2. Through what channels will you reach customers *in the future*?
3. Who will your competitors be *in the future*?
4. What will be the basis for your competitive advantage *in the future*?
5. What skills or capabilities will make you unique *in the future*?

Hamel and Prahalad's use of trend data and insight into developing markets is a compelling call-to-action for anyone still in early to mid-career level employment. They address such topics as (1) crafting a strategic architecture, (2) strategy as leverage, (3) shaping the future, (4) building core competence, and (5) thinking differently—all focused on preparing for the workplace and market-space of the near future. Even those later in their careers and wishing to remain knowledgeable and involved—and maybe put retirement off for awhile might want to make the necessary adjustments.

Enterprise of the Future. In their article: “Building the Enterprise of the Future (2006),” Arthur Murray and Kent Greenes researchers at The George Washington University, Institute for Knowledge and Innovation comment: “Whether public sector, private industry, or non-profit association, all organizations are facing an ever-increasing number of challenges. Some of the more serious of these challenges are: expanding globalization; intellectual property theft/piracy; proliferation of open sources software; massive disintermediation; compressed cycle times; increasingly mobile and less loyal knowledge workers; growing complexity; disastrous consequences of poor decisions; pressure to do more with less; pricing power erosion; reduced barriers to entry for competitors; shifting workforce and consumer demographics/preferences; and low knowledge worker productivity.” (p.39) The authors argue that to overcome these challenges will require increased rates of workforce learning, innovation, and transformation entailing significant attention to four areas business:

1. Business Renewal. “By business renewal we mean completely rethinking strategy in order to achieve high performance in a flat world (Thomas Friedman, 2005). In other words, co-creating entirely new business ecosystems.” (p.39)
2. New Organizational Designs. Industrial age, even information age, organizational structures are inadequate for achieving high performance in a flat world. Hierarchies and matrices need to be replaced by fluid, agile, social networks and communities.” (p.39)
3. Enterprise Infrastructure Nexus. Despite the widespread adoption of enterprise software and the like, the level of integration needed for high-speed, anticipatory planning and response in complex, rapidly changing environments has not been reached.” (p.40)
4. High Performance Transformation. We recognize as a key driving force the notion of shifting organizations from the mindset of “make and sell” to “sense and respond.” (Haeckel, 1999). Learning, innovating and transforming at the speed of change requires rethinking of the whole notion of enterprise.” (p.40)

Murray and Greenes take the view that knowledge worker performance will be a defining factor in these future enterprises, and that attracting, retaining, and developing these knowledge workers will be a critical success factors. They say that: “Knowledge workers must have one seamless environment for managing individual and organizational knowledge, and enhancing productivity.” (p.40)

Complex Adaptive Systems. In their book Organizational Survival in the New World (2004), Alex and David Bennet comment that “Many current top organizations have made changes in the way they do business in the past decade and have been able to create performance through change management and deliberately develop the fundamental characteristics that support success.” And, “Creativity and innovation have come to the forefront as key success factors with many organizations striving to develop and unleash these capabilities throughout their workforce, using a combination of management, the workforce, and their customers.” (p.7) The spirit of this book on learnership is to support and confirm the viewpoint of the Bennets, and to

go beyond their explanations by highlighting the perspectives and techniques that make working in this new world a practical accomplishment. The Bennets introduce the concept of the *Intelligent Complex Adaptive System (ICAS)* which integrates much of the literature on dealing with organizational complexity in a manner that illustrates a number of emergent organizational properties occurring within a rapidly changing environmental context. Their effort is an innovative accomplishment given the level of intellectual reflection required to understand and ameliorate general confusion concerning creating organizational alignment and spirit de corps amid organizational downsizing and outsourcing.

The Bennets comment that an ICAS is an enterprise in which “...*organizational intelligence is taken to be the ability of an organization to perceive, interpret, and respond to its environment in a manner that simultaneously meets its organizational goals while satisfying its stakeholders, that is, its employees, customers, investors, community, and environment...the organization’s capacity to exhibit intelligent behavior.*” In their description, the authors state that the reality of organizational life today is constant and rapid *change*, high levels of *uncertainty*, and pervasive *complexity*. The way to deal with this unrelenting situation is to understand and balance the “emergent characteristics of the evolving ICAS.” (pp.30-31) The eight characteristics they identify and link into an operating model are:

1. Organizational Intelligence. As defined, above. This capability results from the interaction and mutual support among the other seven characteristics.
2. Shared Purpose. The coordination and unification of resources to gain maximum situational understanding, operational knowledge and innovative opportunity.
3. Optimum Complexity. Ability to achieve coherence between organizational elements desiring maximum independence and those organizational functions requiring synchronized alignment of intent and use of resources.
4. Multidimensionality. Development of competencies in the use of a variety of thinking styles, perspectives, and methods to address issues and problems.
5. Knowledge-Centricity. The aggregation of critical data, information, and knowledge that informs strategic direction and action.
6. Selectivity. An ability to determine patterns of information and to filter out those of particular interest and utility.
7. Flow. Flow enables knowledge-centricity in that it accommodates the movement of people and information into and out-of the enterprise to provide maximum access for thinking and decision-making.
8. Permeable Boundaries. In virtual, porous organization environments, the flow of information and intelligence crosses boundaries with little or no delay or resistance.

The dynamic Intelligent Complex Adaptive System the Bennets describe requires continuous scanning of the organization's external environment so as to be aware of and act on emerging threats and opportunities. The primary ways that organizations prepare for and take action for survival and prosperity are to employ creativity, problem-solving, decision-making, and action implementation—proactively.

[Author's Note: The five reasoning competencies developed and advocated in this book: *systems thinking, pattern recognition, situational learning, knowledge management, and adaptive leadership*, are likely to be right at home when used in the ICAS.]

Intelligent Organizations. In The End of Bureaucracy and the Rise of the Intelligent Organization (1993) (Pinchot & Pinchot), the authors describe the changing nature of work which requires a revolutionary change in the structure of contemporary organizations. Whereas bureaucracy once provided the stability and control necessary for effective and efficient operations, the need is for a less hierarchical, more flexible structure to accommodate the complexity and pace in today's marketplace. Major changes include moving away from work that is unskilled, repetitive, individual, functional, and single skilled, to work that requires greater knowledge, innovation, teamwork, project focus, and multiple skills. The power of bosses and coordination from above is being replaced with the power of customers and coordination among peers and colleagues.

According to Gifford and Elizabeth Pinchot, organizations (and their members) must be able to learn efficiently what needs to be done and how to take action most effectively. They provide a thought-provoking delineation of the seven necessary conditions for organizational intelligence based on the perennial social paradox of trying to balance individual *rights* and *responsibilities*. Three of the conditions are grouped under a category entitled Freedom of Choice (herein considered to be *rights*). The right to have freedom of choice refers to the basic human need to be self-directed, and to choose one's own approaches to reasoning, learning, and action. The following organizational principles are indicated:

1. Widespread Truth and Rights. Well informed teams of people need accurate, timely information on customer needs, financial results, new product development, organization strategies and a host of other operational details to correctly assess situations and take action.
2. Freedom of Enterprise. Freedom of action is needed for knowledgeable teams to take those steps indicated by their information and analysis of situations. The focus should be on the customer, and the legitimacy of action comes from them, rather than the welfare of the bosses.
3. Liberated Teams. Teams need to learn and take action through knowledge-based collaboration which is embedded in shared mission, vision, and values. Self-responsibility and management are essential for this to be accomplished necessitating a reduction in bureaucratic direction and control.

Another three conditions are grouped under a category entitled "Responsibility for the Whole" (herein referred to as *responsibilities*). These conditions concern the need for people to connect, collaborate, and give each other support—to operate as a community in which the community's needs are sometimes superior to those of the community's members. The organizational principles include:

4. Equality and Diversity. Individual members of the organization are required to treat all others with equal respect as to essential human rights and privileges. Opportunity for learning and development should be provided to all members to improve their team contribution and performance.
5. Voluntary Learning Networks. The power to decide should be distributed so that all individuals and teams may pursue network building for purposes of learning and taking action in the areas for which they are responsible. A continually changing network of connections is anticipated as situational needs change.
6. Democratic Self-Rule. Participative democracy rather than representative democracy is indicated which provides for full rights and responsibilities for all individuals and teams. A fully participative organization provides the means for self-management.

The seventh (7) condition for organizational intelligence is Limited Corporate Government. This condition applies to the superstructure under which the first six conditions are framed. The Pinchots state that: "...the role of the center [corporate government] is to create the conditions that empower others to build effective intraprises" (p.73). Centrally established rules and procedures should be kept to a minimum to insure safe, efficient, and externally compliant operations. This would allow organization teams the maximum flexibility in internal operations and encourage self-management. The goal should be to enhance freedom and community and displace bureaucracy and hierarchy to the largest degree possible.

[Author's Note: This perspective contributes insight into the learning anchor. In order for an organization to be high-performing in terms of its customers' needs and expectations, it must continue to learn and increase its store of knowledge. It must maintain a rate of development that equals or exceeds that of its competitors if it is to remain effective. Achieving this capability requires balance in the manner in which the organization operates. Individual and team rights and responsibilities must be emphasized in a democratically managed environment to assure both personal (PSD) and organizational (OSD) growth and development.]

Phases of Organizational Growth. In "Evolution and Revolution as Organizations Grow" (Greiner, HBR, Sep 22, 2007), the author presents a social-systems-development model which suggests five phases of organizational growth. The model's horizontal axis depicts the age of the organization (young to old), while its vertical axis depicts the size of the organization (small to large) yielding a growth curve illustrating alternate periods of evolution and revolution. The overview of each phase is as follows:

1. Phase 1: Organization is Young and Small. Focus is on the technical, not the managerial aspects of the organization. This is the phase of evolutionary *growth through creativity* followed by a *leadership crisis* and a revolution leading to the next phase.
2. Phase 2: Organization a Bit Older and Larger. Focus is on leadership and organization direction and management. This is the phase of *directed evolutionary growth* followed by an *autonomy crisis* and a revolution leading to the next phase.
3. Phase 3: Organization is Much Older and Larger. Focus is on loosening the reins and empowering employees for greater performance. This is the phase of *growth through delegation* followed by a *crisis of control* and a revolution leading to the next phase.
4. Phase 4: Organization is Much Older and Larger. Focus is on work unit result, but organization size and complexity creates inefficiency and frustration. Focus is on *growth through coordination* followed by a *bureaucracy crisis* and a revolution to the next phase.
5. Phase 5: Organization at Highest Maturity and Very Large. Focus is on organization participation through employee development, teamwork, and other behavioral-oriented techniques. Focus is on *growth through collaboration* followed by (perhaps) a *psychological saturation crisis* leading to an undefined revolution.

Greiner suggests that each phase of growth presents a unique development challenge and requires a particular approach to management; and that the actions taken by management affect the direction and rate of organization growth.

[Author's Note: An observation here is that organizational system development may be aided or constrained by management's capacity to learn of emerging structural and social tension and take appropriate action.]

Organization Direction

*It is only in respect to knowledge that a business can be distinct;
and can produce something that has value in the marketplace.
Peter Drucker*

Overview: Transformation Leadership

National Baldrige Award Criteria. The development of the NIST Baldrige National Quality Award program early in the 1990s led to over 15 years of successful evaluation, recognition, and reward of U.S. organizations that have developed exceptional performance practices in the areas of business, health care, education, and not-for-profit services. During that time variations of the

same seven criteria have been used which is testimony to their organizational importance and acceptance by knowledgeable professionals in the participating industries. These criteria are:

1. Leadership. How the organization's senior leaders address organizational values, direction, and performance expectations.
2. Strategic Planning. How the organization develops strategic objectives and action plans.
3. Human Resource Development. How the entire workforce is enabled to develop their full potential.
4. Process Management. How the organization systematically examines its processes for continuous improvement of quality and operational performance.
5. Information and Analysis. How the organization examines the scope, management, and use of data and information; and how that information drives operational performance.
6. Business Results. How well does the organization achieve and improve on its market and financial performance.
7. Customer Satisfaction. How well does the organization know its customer's requirements, and to what extent does it develop relationships with its customers.

Change Management Criteria. Since the 1980s various forms of organizational change methodologies have been developed and used. One of the most comprehensive was advocated by leaders at Massachusetts Institute of Technology; and subsequently applied in a number of variations by businesses and consulting firms since that time. The theory is that all six of the following criteria need to be addressed when building a full scale organizational change management program.

1. Leadership. Executive and middle management communications and support for activities and projects designed to change what work is done and how it is accomplished.
2. Structure. Organizational design and functional changes in how the organization arranges itself in terms of responsibilities, authorities, locations, and resource management.
3. Culture. How the organization intends to change and/or modify its basic operating assumptions, work relationships, and workforce usage.
4. Process. How workflow is accomplished within and across organizational functions and boundaries.
5. People. The organizational workforce: its knowledge, skills, abilities; remuneration and work methods; management and employee expectations and relationships.

6. Technology. The tools and information technology used to expedite communications, workforce collaboration, and work process management.

Knowledge-Enabled Organizational Improvement. The Knowledge Management discipline received a significant boost when in 2003 The George Washington University initiated a KM curriculum under the auspices of its Department of Engineering Management. The George Washington University curriculum for Knowledge Management includes an introductory KM course, four core courses in organizational *leadership*, organizational *learning*, *organizational operations*, and information *technology*; and a seminar in KM systems engineering and management. The program, recognized internationally as one of the leading programs in KM, is available to students seeking a certificate in KM and those wishing to make KM a major for their masters or doctorate programs in engineering management.

In 2004, this author established a comprehensive organizational assessment tool by integrating the Baldrige Award Criteria, MIT Change Management Criteria, and GWU Knowledge Management Education criteria into an *Enterprise Systems Excellence Model (ESEM)*. This Model has subsequently been used by GWU students and private consultants to conduct assessments of public and private organizations with very satisfactory results. Two additions were made to the criteria to ensure a more comprehensive analysis could be conducted. One was to establish a *decision-making criterion* to ensure the organization made timely and accurate use of the information they generated and received concerning their current levels of performance, and the second was to include a *learning and knowledge management criterion* to reflect the ubiquitous impact learning and knowledge have on the other criteria. An illustration of the ESEM criteria and their supporting relationships is at [Figure 8-2](#), OSD for High Performance.

[Author's Note: The twelve criteria shown in [Figure 8-2](#) are believed to be one of the most comprehensive set of topics by which organizations may be evaluated for use of best management practices, and for the achievement of high levels of management performance. They can be used for independent assessment of performance such as with the Baldrige Program, or they can be used, as appropriate, as part of an organizational change management strategy. In either case, they are knowledge-enabled through the use of KM practices and technologies which make them more integrative and broad-based than most similar techniques.

Organizational Leadership. In *Managing for the Future* (Drucker, 1992), the author recounts the Japanese view that there are only two demands of leadership: One is to accept that rank does not confer privileges; it entails responsibilities. The other is to acknowledge that leaders in an organization need to impose on themselves the responsibility for congruence—between deeds and words, between behavior and professed beliefs and values—that which we call personal integrity (pp.116-117).

Drucker builds on this point by stating that what distinguishes the leader from the misleader is: (1) his goals and standards—does he hold to them fairly well for the benefit of the organization while experiencing the constraints of reality? (2) his willingness to be ultimately responsible—

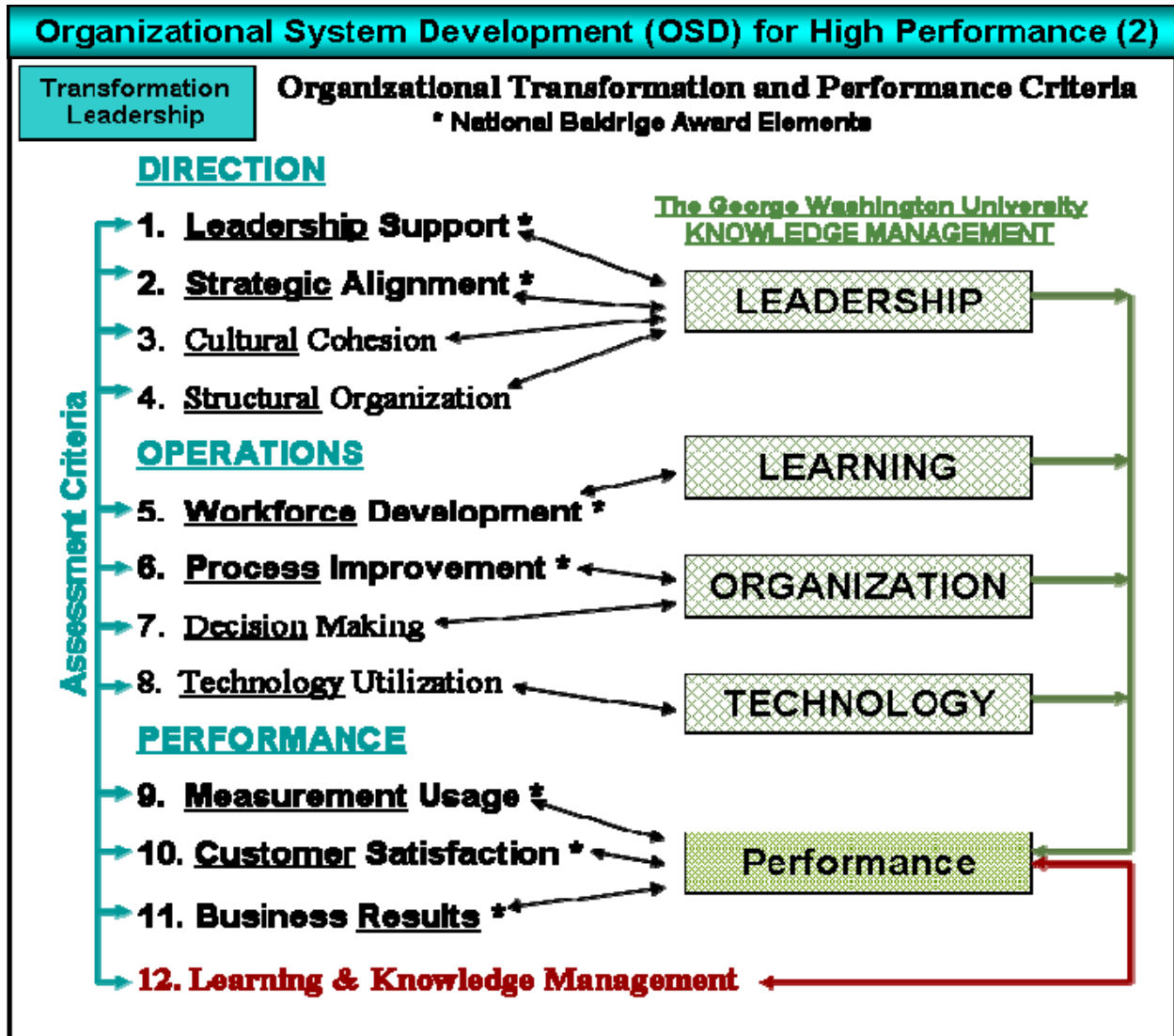


Figure 8-2

does he accept the inevitability that things often go wrong in organizations and resist blaming others? (3) his comfort with strong associates and subordinates—does he encourage them and participate in their success? (4) his trustworthiness—does he earn others' respect through his integrity and consistent behavior? (pp.121-122). This viewpoint focuses on the importance of instituting a sense of purpose, responsibility, order, and integrity in the organization—an ontological infrastructure upon which operational processes and activities may be based.

Another perspective on modern leadership is offered in *The Leadership Challenge* (Kouzes & Posner, 1987) in which the authors include a comment by news commentator Edward R. Murrow on what followers want from their leaders: "To be persuasive we must be believable; to be believable we must be credible; to be credible, we must be truthful." From this they build the case for the following behavioral commitments from leaders:

1. Challenging the Process. Search for opportunities, experiment, and take risks
2. Inspiring a Shared Vision. Envision the future and enlist others
3. Enabling Others to Act. Foster collaboration and strengthen others
4. Modeling the Way. Set the example and plan small wins
5. Encouraging the Heart. Recognize individual contributions and celebrate accomplishments.

The view here is one of leader pro-activity in which cognitive and affective engagement of others in the business or organization leads to greater inquiry, learning, and collaborative decision-making to improve processes and achieve better quality and operational results.

From a learnership perspective, leaders have a primary responsibility in establishing the vision, mission, values, strategies, and motivation to move the organization forward. Without their customer focus, strategic insight, organizational understanding, and personal commitment and integrity, the organization's human resources and operational processes may tend towards fragmentation because of insufficient alignment and cohesion. When leaders emphasize customer satisfaction, and support the workforce in learning how to better serve their customers, individual and organizational learning is encouraged which results in business process improvement, higher organizational performance, and greater customer satisfaction.

[Author's Note: In terms of the learnership organization systems construct, the social subsystem conveys the leader-follower relationship required for communication and coordination of the organization's strategic and operational capabilities. Leadership may be thought of as the social catalyst that creates future vision, fosters organizational dialogue, and forges participative strategies for organization high performance and customer satisfaction.]

A Contingency Approach to Leadership. In his book entitled Management (Stoner, 1982), the author comments on research for leadership effectiveness and says that: "...effective leadership seemed to depend on a number of variables, such as organizational climate, the nature of the tasks and work activities, and managerial values and experience. No one trait was common to all effective leaders; no one style was effective in all situations" (p.477). Apparently, the dynamic and fluid set of circumstances that surround organization decision makers prohibit a one-approach-fits-all approach to management. The leader's personality, past experience, and expectations; the expectations and behavior of his or her superior; and the subordinates' characteristics, expectations, and behavior are all important factors that frame the decision environment and must be accounted for if the decision requires others' action and support. A contingency approach to leadership requires that relevant factors be weighted in terms of organizational objectives and that a leadership style best suited to effective action be chosen. This leadership strategy requires flexibility in reasoning and action on the part of the leader, and the capability to adjust his or her perception and understanding of the decision environment. The more knowledgeable, experienced, and skilled leaders are thought to be more perceptive, open, and proactive in moving their agenda forward amid prevailing obstacles, complexity, and ambiguity.

Particularly noteworthy is the work of Hersey and Blanchard in suggesting The Life Cycle Theory of Leadership (Hersey & Blanchard, 1979). They hold that the appropriate style of leadership employed should be determined by the leader's perception of a subordinate's *maturity*, which in turn is a measure of his or her (1) desire for achievement, (2) willingness to accept responsibility, and (3) task-related ability and experience. The leader-subordinate relationship in their model is offered as a developmental strategy that correlates well with other theories of human psycho-social learning and development. Their model relates two dimensions of leader behavior (task behavior and relationship behavior) to derive a two-by-two matrix that illustrate four potentially effective leadership styles. These are:

1. High Task, Low Relationship. Appropriate when the subordinate is new, inexperienced, or not motivated. The perceived level of maturity is low.
2. High Task, High relationship. Appropriate when the subordinate somewhat more experienced and better motivated. The perceived level of maturity is moderate.
3. Low Task, High Relationship. Appropriate when the subordinate is experienced and motivated, and desires to participate in decision making in matters that concern his or her work. The perceived level of maturity is high organizational maturity.
4. Low Task, Low Relationship. Appropriate when the subordinate becomes a competent, confident, and highly motivated contributor.

[Author's Note: The applicability of these perspectives to the learnership Organization Systems Development construct is seen in the learning that both leader and subordinate experience as shared perspectives and increased performance develop. A transformation from dependence, through independence, to interdependence may be theorized—with all the attendant aspects of ego development presented earlier in the inquiries on Personal System Development. A reasonable expectation might be that improving the effectiveness of leader-subordinate relationships would improve the efficiency of organization operations and increase customer satisfaction.

Learning from Experience. In The Lessons of Experience: How Successful Executives Develop on the Job (McCall et al, 1988), the authors report on their research on the kind of experiences that have the greatest impact in developing competent general managers. The purpose served by this reference, in the context of this book, is to illustrate the essentiality of experiential learning for the development of managers—and for that matter, all members of the organization. Classroom and textbook learning are not sufficient methodologies for helping employees to develop the confidence and competence required for reliable and high levels of performance of their organization responsibilities. McCall et al. report that the managers they studied experienced a variety of *assignments* (learned: confidence, independence, knowledge, relationships, and toughness), *bosses* (learned: values and politics), and *hardships* (learned: humility and perspective) that led to thirty-two lessons in five major areas of development. The developmental areas are:

1. Setting and Implementing Agendas. Thinking broadly, accepting responsibility, and finding alternative ways to accomplish desired outcomes.
2. Handling Relationships. Developing a variety of interpersonal skills appropriate to the variety in the types of people and situations faced.
3. Basic Values: Accommodating established organization values that play out in organizational situations.
4. Executive Temperament: Coping with the demands and ambiguities of executive jobs through flexibility and adaptation.
5. Personal Awareness. Becoming self-aware and knowing one's strengths and weaknesses.

The advice given by experienced managers for others' development include: "Take advantage of opportunities, aggressively search for meaning, and know yourself," and "Ultimately we each are responsible for our own development...development boils down to the same 'do it, fix it, try it' philosophy found in excellent companies" (pp.123-124).

McCall et al. recognize the contradictory and paradoxical nature of organizational life and managerial responsibility, and emphasize the *need to achieve balance*. Examples provided (p.144) include:

1. Acting alone *and* working with others
2. Making tough decisions *and* treating people with compassion
3. Having the confidence to act *and* the humility to know there are other views
4. Seizing opportunities *and* planning for the future
5. Taking control *and* accepting the inevitable
6. Persevering in the face of adversity, *yet* changing direction when wrong.

An observation within the context of this study is that while the examples given above are meant to be specific to the management function, it may clearly be seen that most employees in the workforce are also challenged to achieve a similar state of balance in terms of performing their respective functions, and in maintaining cohesive interpersonal relationships.

[Author's Note: The importance of this experiential learning perspective in terms of the learnership OSD construct may be understood by recognizing that it is through daily, practical, personal and organizational experience that situational learning occurs. And, that situational learning is the foundation for OSD organizational subsystem (Direction, Operations, Performance) development.

Strategic Management and Planning. Effective long-term survivability and prosperity for private and public sector organizations is significantly dependent on their respective capacities to discern future opportunities and threats and to develop strategies to succeed. In their book Thinking Strategically: A Primer for Public Leaders (Walter & Choate, 1984), the authors state

that strategic management is equally important to private and public sector organizations and would include: " (1) a systematic analysis of pivotal long-term trends and issues, and (2) a comprehensive analysis of the institution's capacity to respond to those trends." An effective framework would include the use of foresight, goal setting, strategic planning, operational management, and evaluation of performance. A complementary viewpoint is offered in Applied Strategic Planning (Goodstein et al., 1992) in which the authors emphasize the need for organizations to conduct values scans, performance audits, and gap analysis in order to establish meaningful action plans and implementation strategies.

Implicit in these management recommendations is the need for organizations to learn about their external environments and to conduct evaluations of their capacities to respond to market pressures and customer needs. It is clear that strategic management contains elements of continuous learning and process improvement which are at the core of quality management.

[Author's Note: Once again, learning emerges as an underlying factor in achieving customer satisfaction, and this occurs within the ontological web of purpose, history, order, and consequences that provides the organization its sense of identity and faith.]

Organization Development and Change. In Organization Development and Change (Cummings & Huse, 1989), the authors define Organization Development (OD) as "a systematic application of behavioral science knowledge to the planned development and reinforcement of organizational strategies, structures, and processes for improving an organization's effectiveness." OD efforts begin with the assumption that the organization can learn to improve its ability to solve its own problems and take better advantage of available opportunities. The objective is to increase the organization's capacity to perform and to improve the quality and desirability of its products and services. Any organization subsystem: strategic, operations, or performance may be the focus of the improvement effort, however, interpersonal and team effectiveness (social subsystem) is usually part of most problems, and therefore, part of their solution. The typical OD practitioner is an external consultant or internal manager/specialist who knows how to frame organizational issues, structure data gathering and analysis, and assist management in making appropriate decisions. The process used is sometimes referred to as "action research" which connotes the idea of linking research closely to action when the objective is to effect near-term organizational change.

Today's organization's continued interest in some aspects of quality management—and now focused on organizational learning, may be considered an elaboration on the organizational development methodologies that experienced acceptance in the 1970s and 1980s. What quality management emphasized was customer focus, managing with data, employee participation, and continuous process improvement in developing the organization; while organizational learning theory focuses on systems thinking, team learning and dialogue, and the attainment of shared visions of the future. Both offer a strategy to achieve the alignment and cohesion thought to be necessary for increasing the organization's capacity to perform.

[Author's Note: The learnership philosophy and architecture are designed to incorporate the OD features and activities learned through this writer's personal study and practical experience in these areas. In particular, the learnership practitioner has many of the skills of an experienced OD facilitator.]

Corporate Culture and Character. In Gaining Control of the Corporate Culture (Kilmann et al, 1985), the author says that: "Culture may be defined as the shared philosophies, ideologies, values, assumptions, beliefs, expectations, attitudes, and norms that knit a community together. Culture is manifest in behavioral norms, hidden assumptions, and human nature; each occurring at a different level of depth" (p.5). He views the culture of an organization as having significant impact on how well the organization performs and suggests that there are three interrelated aspects of the impact of culture: direction, pervasiveness, and strength. "Culture direction" pertains to the course the culture is causing the organization to follow; "culture pervasiveness" concerns how widespread or shared are the beliefs among the members of the organization; and, "culture strength" has to do with the level of pressure the culture exerts on the organization members. Taken together, organization culture may significantly aid or limit progress toward achieving desired goals and objectives.

A related cultural concept is that of Corporate Character (Wilkins, 1989). Corporate or organizational character has as its central premise that a mutually reinforcing relationship exists among three organizational culture components: shared vision, distinctive skills, and motivational faith. Wilkins regards motivational faith as the foundation of corporate character, and states that "If people believe that they will be treated fairly and have confidence that the organization can become competent, then they are willing to cooperate on developing shared vision and appropriate execution skills" (p.25). Motivational faith depends on *fairness* (of the leaders and of others) and on *ability* (personal and organizational). Wilkins refers to the faith ingredient as "social capital," that creates workforce resilience which may be drawn upon by the organization when it faces complexity and unexpected challenges. He suggests that leaders have a responsibility to build and maintain social capital in order to sustain the organization's adaptability, growth, and development.

[Author's Note: This inquiry into the organizational culture and character aspects of organizational development has been useful in that it helps explain certain foundational social beliefs and relationships with relevance to the OSD portion of the learnership model. An observation here is that when an organization's culture and character are aligned with, and supportive of, the organization's goals and objectives, the environment for learning and development and for quality improvement are appreciably enhanced. Under these conditions, the OSD social subsystem provides direct support to the direction, operations, and performance subsystems and creates the potential for optimization at the OSD level. Looking back at the Personal System Development (PSD) segment is also informative in that one may easily recognize that the degree to which an organization's social subsystem can succeed is dependent upon the level of development of the individuals' abilities (PSD ability subsystem) and character (PSD character subsystem).]

Organization Operations

*Quality is never an accident,
it is always the result of intelligent effort.
John Ruskin*

Overview: Process Transformation

Total Quality Management. Warren Schmidt and Jerome Finnigan in The Race Without a Finish Line: America's Quest for Total Quality (1992), state that: "Achieving a consistently higher quality of products and services for customers requires a significant difference in the way managers and workers view their roles, responsibilities, and relationships." (p.4) The authors trace the roots of TQM from quality of work life (1975), quality circles (1980) employee involvement (1985), employee empowerment (1990), and self-directed teams (1995). They say that "total" means *quality* and *management*, and that there are six key factors evident in award-winning companies: (1) a high level of management commitment and leadership, (2) supportive organizational structures, (3) quality-oriented tools and processes, (4) tailored educational programs, (5) innovative reward strategies, and (6) full and continuing communications.

Schmidt and Finnigan point out that: "TQM goes by many names, but it has a single goal: customer satisfaction...it is not a program but a way of organizational life." (p.33) They say that there are three qualities that distinguish TQM from other management theories and quality control programs:

1. It is company-wide in purpose and process. It is the way in which an organization carries on all of its activities, not just product delivery and functions.
2. It emphasizes steady, continuous improvements through the use of facts and the reduction of variability.
3. Its focus is on improving performance by turning the organization into an efficient engine for satisfying customer requirements." (p.34)

Research by the authors in public and private sector organizations in both service and manufacturing industries indicate that there are eight principles at work in these high performing organizations:

1. The Principle of Customer Satisfaction. The ultimate goal
2. The Principle of Challenge. The willingness to set an objective and go after it
3. The Principle of Process. Focus on process improvement to achieve better performance
4. The Principle of Continuous Improvement. Continuing to pursue and make small improvements toward the ultimate objective

5. The Principle of Collaboration. The willingness to work with others in goal achievement
6. The Principle of Change. The necessity of change in people as well as processes
7. The Principle of Measurements. A commitment to manage by operational facts
8. The Principle of Persistence. A marathon rather than a sprint

While there are proven benefits that result from transforming an organization with rather routine competencies and market positioning to one that emphasizes TQM throughout its operations, TQM is not for all firms. Schmidt and Finnigan state that organizational leaders need to assure themselves that they understand the degree of challenge before them and their readiness to embark on that journey. They recommend that the organization leaders:

1. Understand the dynamics of the organizational transformation they will need to lead.
2. Assess their organizations readiness for change.
3. Assess the management team's willingness to learn and lead change.
4. Review the leadership styles in use to ensure they support the TQM methodology.
5. Determine if there is a willingness to learn from other organizations' experience.
6. Establish a well thought out project plan for getting started.

[Author's Note: TQM started in the 1990s and notwithstanding its well documented successes there was a chorus of negative comments from those ill-informed or unable to muster the ability and persistence needed to achieve the benefits others had obviously accumulated. This is to be expected because no improvement initiative is fail-proof. Still, the principles of TQM remain embedded in today's management culture—customer focus, continuous improvement, measurement of performance, and improvement of work processes.]

Business Process Reengineering. In their Reengineering the Corporation (1993), Michael Hammer and James Champy broke from the continuous process improvement, incremental model of TQM to the break-it and change-it, quantum change model of process reengineering. Discontinuous thinking became the notion at the time and they stated that: "Reengineering capitalizes on the same characteristics that have traditionally made Americans such great business innovators: individualism, self-reliance, a willingness to accept risk, and a propensity for change." (p.3) Through their research with companies dramatically reinventing themselves and making great strides in their respective markets, the authors concluded that: "Reengineering... can't be carried out in small and cautious steps....It is an all-or-nothing proposition that produces dramatically impressive results." (p.5) Better, faster, cheaper became the bywords of the late 1990s as public and private sector organizations attempted to transform into market leaders and providers of above average financial returns.

Hammer and Champy's definition of reengineering was: "...it is the fundamental rethinking and radical design of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service, and speed. The four key words were *fundamental, radical, dramatic, and processes.*" (pp.32-35) The emphasis on process-thinking

was particularly notable because, just like in TQM, business processes often cut across formal business functions—across the organizational white space—where much of the inefficiency occurs. This more true for core production processes of organizations than their support functions, and this is exactly where effort and resources needed to be focused to get the best return from process reengineering.

Research by the authors of successful Business Process Reengineering (BPR) efforts in major U.S. corporations led them to identify four recurring themes that made the difference for firms willing to persist with reengineering efforts:

1. Process Orientation. A willingness to choose processes that cut across organizational function boundaries
2. Ambition. A commitment to achieve breakthroughs and not settle for anything less than huge returns (80%, not 20%)
3. Rule-breaking. An ability to overcome previous assumptions and ways of working and to abandon anything that did not fit into the new ways of work
4. Creative Use of Information Technology. Used modern IT as an enabler in creating new ways of doing work (p.47)

Concurrently, they discovered that reengineering was not:

1. The same as automation.
2. Software engineering old work processes without change them along the way.
3. The same as restructuring or downsizing which often just reduces capacity to perform.
4. The same as reorganizing, delaying, or flattening an organization which may just move things around without improving efficiency. (p.48)

Hammer and Champy summarized the new world of work after business process reengineering as having changed on multiple levels of responsibility and activity:

1. Work Units Change. From functional departments to process teams
2. Jobs Change. From simple tasks to multi-dimensional work
3. People's Roles Change. From controlled to empowered
4. Job Preparation Changes. From training to education
5. Focus of Performance Measures and Compensation Shifts. From activity to results
6. Advancement Criteria Change. From performance to ability
7. Values Change. From protective to productive
8. Organizational Structures Change. From hierarchical to flat
9. Executives Change. From scorekeepers to leaders (pp.65-79)

[Author's Note: In a manner similar to TQM, reengineering was proven to work well in many major reengineering efforts, but many in the mainstream media failed to become sufficiently informed and so reported that "reengineering had come and gone" when all that had happened

was that TQM and BPR morphed together into the management consultant's toolbox of business improvement methodologies. Just another tool along with Organizational Change Management and many others that are now a staple of good management practices. Also worth noting is that the progressive development and use of TQM and BPR laid the foundation for latter management improvement techniques such as organizational learning and knowledge management which has good support today in knowledgeable circles.]

Process Transformation. The centrality of process analysis in organizational performance improvement is a notable fact for private and public sector managers and management consultants. Most attempts at performance improvement begin with an understanding that all organizations are an arrangement of processes and that these processes consist of workflows that can probably be improved. Processes are sometimes referred to as systems when the focus is primarily on the IT tools that contribute to process workflow.

Figure 8-3 is an illustration of a generic high level organizational process model that places emphasis on the core functions or processes of the organization. Core processes are defined as those processes that contain the fundamental purpose of the organization such as automotive manufacturing, newspaper production, intelligence gathering, and dry cleaning. All organizations require an executive level infrastructure that leads, directs, and supports *organizational management* interface with the external environment. These functions are represented by the executive leadership, research and development, legal and contracts, financial management, and sales and marketing functions. Functions focused on internal support to the core functions/processes are called *business support* and typically include program and budget, human resources, information technology, facilities and supplies, and security.

Within U.S Federal Government IT operations, the relationships in the figure could be the beginning of the development of an Agency or Department Enterprise Architecture (EA). Typically, there would be five sub-elements through which the enterprise would be described for IT management purposes: (1) business architecture, (2) performance architecture, (3) data architecture, (4) service architecture, and (5) technology architecture. Reference is made to [Figure 8-5](#) for more information on the IT architecture and its contributions to enterprise systems engineering.

Organizational White Space (Systems Management). Rummler and Alan Brache are authors of the book: Improving Performance: How to Manage the White Space on the Organization Chart (1995). In it they say that organizations need to be managed as systems, and to do that process management is essential. In particular, however, they claim that: "...managers should concentrate as much or more on the flow of products, paper, and information *between* departments as on the activities *within* departments. Process management provides a methodology for managing this white space between the boxes on the organization chart." (p.xvi)

The authors are particularly concerned with the *silo mentality* in organizations where function set their own objectives and subordinate managers tend to perceive other functions as competitors. They say the: "The silo culture forces managers to resolve lower-level issues, taking their time

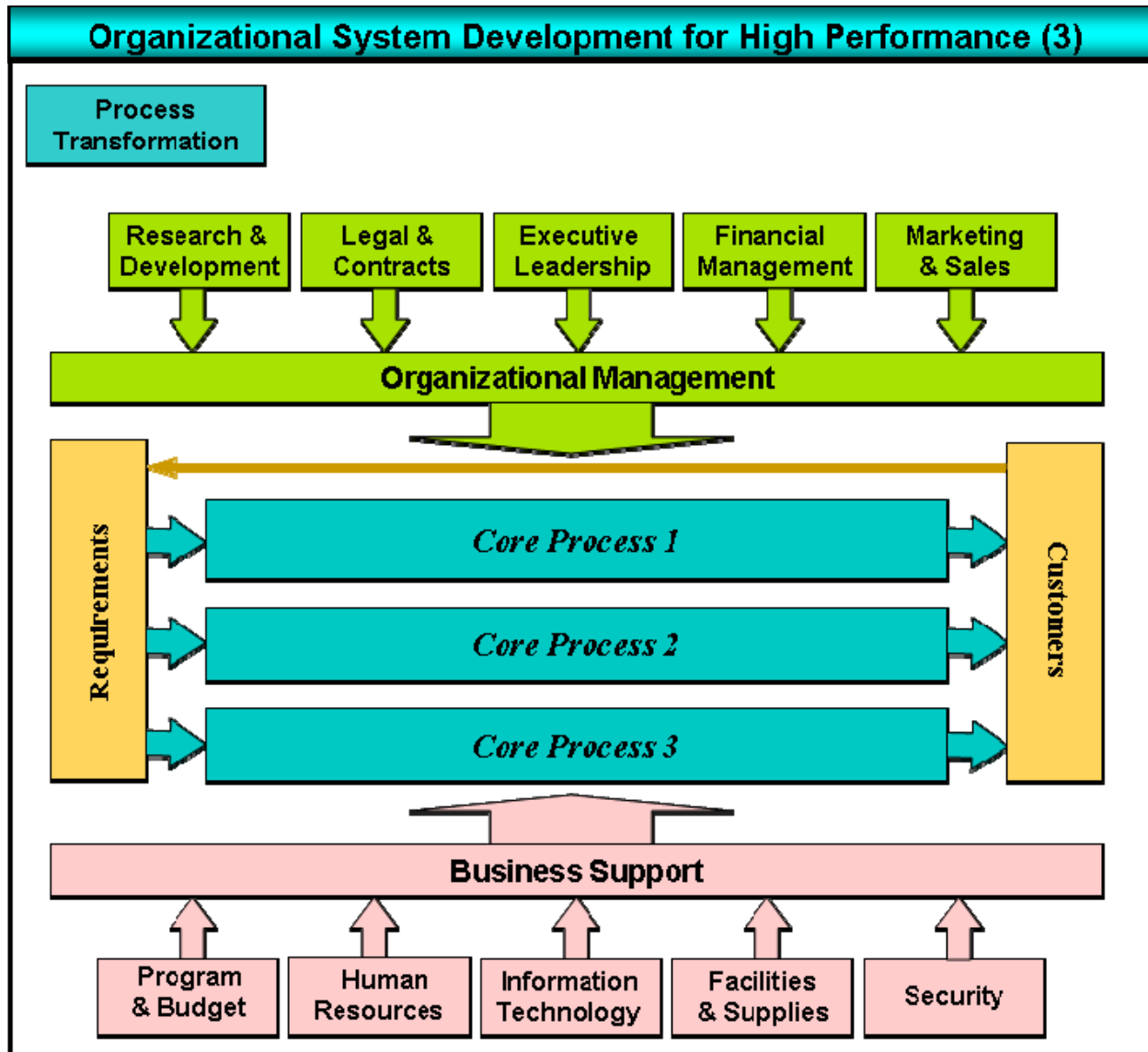


Figure 8-3

away from higher-priority customer and competitor concerns. Individual contributors, who should be resolving these issues, take less responsibility for results and perceive themselves as mere implementers and information providers...This functional sub-optimization often contributes to the sub-optimization of the organization as a whole." (p.7) Instead, the authors advocate a systems (horizontal) view of the organization in which a high level picture of the business can be seen. This way, three important features can be observed: (1) the relationship between flow of work, the product, and the ultimate customer, (2) how work gets done across functional boundaries, and (3) the internal customer relationships that need to be managed.

Rummler and Brache suggest a useful conceptualization of the enterprise or organization in terms of three levels of performance:

1. Organization Level. At this level the organization's relationship with its market be clearly seen. Executive level leaders focus on organizational goals, design, and management. This is the level at which the organization measures its performance effectiveness within its marketplace.
2. Process level. At this level the organization performance at the cross-functional process level is managed by mid-level managers. Their concern is measuring and managing the efficiency of their processes.
3. Job/Performer level. At this level of the organization the emphasis is on job goals, design, and performance. The concern here is that each contributor operates in a competent manner, and is recognized in doing so. (pp.15-19)

[Author's Note: The Rummler-Brache approach to managing organizational performance improvement is significant in that it provides an easily understood framework that simplifies organizational complexity and allows effective communication and action. The Three Levels viewpoint enables the manager, consultant, or learnership practitioner to recognize important variables affecting performance and to systematically take corrective action.]

Benchmarking Company Performance. Gregory Watson's book entitled: Strategic Benchmarking: How to Rate Your Company's Performance Against the World's Best (1993), contributes to the process improvement emphasis of this section in that it describes a methodology for making comparisons between one's own organization and another organization already recognized for its expertise in a related aspect of process management and performance. Watson defines benchmarking as "A continuous search for and application of significantly better practices that leads to superior competitive performance." (p.2) The benchmarking process follows the well known Deming improvement cycle (plan, do, check, act) with plan the study, conduct the research, analyze the data, and adapt/implement the findings.

In explaining the important value-added contribution of benchmarking to organizations that use it, Watson mentions a study by GE by former CEO Jack Welch who wanted to position GE for the coming decade. The GE team discovered that the top competition placed great emphasis on leading top-down process improvement and increased productivity. In fact, they concluded that a world-class competitor:

1. Knows its processes better than its competitors know their processes
2. Knows the industry competitors better than its competitors know them
3. Knows its customers better than its competitors know their customers
4. Responds more rapidly to customer behavior than do competitors
5. Uses employees more effectively than do competitors
6. Competes for market share on a customer-by-customer basis (p.34)

According to Watson, the essentials of benchmarking start with recognizing the potential value of comparing functions and processes in order to improve how to perform the same or similar function. Doing so requires following certain accepted principles which include: (1) creating reciprocal relationships with others, (2) carefully applying analogy between process features,

(3) using valid measurement criteria, (4) maintaining confidential information gained from others, and (5) using information only for purposes fully described in advance. The specific questions that should be answered in setting out to do a benchmarking activity are: (1) What should *we* benchmark? (2) Whom should *we* benchmark? (3) How do *we* perform the process? and (4) How do *they* perform the process? In each situation it is important to carefully review each other's processes, practices, and methods; and then the outputs, results, success factors that are involved.

[Author's Note: The fact that the discipline of benchmarking was developed and became popular is a strong indicator of the importance business professionals place on process management as a key area for organization performance improvement.]

Overview: Workforce Transformation

Not finance. Not strategy, Not technology. It is teamwork that remains the ultimate competitive advantage, both because it is so powerful and so rare.
Patrick Lencioni

Workplace Learners. In his book: The Workplace Learner (2002), author William Rothwell reviews the recent studies on the effectiveness of organizational workforce training. He finds that training is not always timely, the right solution, sensitive to individual differences, and/or transferred back to the one's job efficiently. In fact, he states that training away from the workplace often misses the point that what the organization really wants is not employee *training*, but employee *learning*—and particularly, that learning that leads to improvement in *performance*. He comments that: “A better approach is to focus on how people learn and give them the means to learn on their own. Only that way can individuals keep pace with dynamically changing organizational conditions and the explosion of information and knowledge.” (p.25) Rothwell points to fourteen trends that will influence the growing importance of workplace learning:

1. Partitions between the workplace and other spheres of life are falling down.
2. Increasingly, individuals must take charge of their own learning.
3. Instructional technology will encompass all sense and will be paired with expert systems.
4. More workplace learning will occur in real time.
5. Workplace learning will assume broader definitions.
6. Advances in neurophysiology will yield new insights into the learning process.

7. Individuals will increasingly seek employers who encourage learning.
8. Organizations will increasingly seek individuals who are willing to take charge of their own learning.
9. Workplace learning program practitioners will increasingly become facilitators of learning, and their competencies will be dependent on learner competencies.
10. Organizations viewed as learning organizations will become synonymous with high performing workplaces
11. Links between learning and performance will become more apparent, more measurable, and more convincing to traditionalists
12. Work groups and teams will become one of many vehicles by which to organize and direct learning experiences
13. Learning ability, not educational attainment will become a measure of success
14. Cross-cultural differences in learning styles will become more widely explored

Rothwell introduces the concept of Free Agent Learners (FALs) who will be those who "...take their own initiative to seek out knowledge skills, and attitudes to meet their needs without necessarily relying on support, or assistance from immediate supervisors or institutional provider. [And] The key challenge they face is sifting through the immense amount of information that is available to find useful knowledge that can be applied to solving the immediate work and life problems they face." (p.39) The characteristics of Free Agent Learners that distinguish them from other learners are:

1. They want information on demand, and they also want learning resources just in time to help them.
2. They are persistent. They are tenacious enough to wade through useless information on the Web to find what they need.
3. They are more highly motivated for their own purposes than most people or other learners. When they have a problem or sense a need, they jump into action.
4. They are problem-oriented. They usually do not learn just for fun, though they may occasionally learn out of curiosity.
5. They structure their own knowledge and skill acquisition. They willingly accept chaotic information, and are willing to piece it together like someone working on a jigsaw puzzle.

6. They are skilled in using technology. They may start researching a problem on the Web because of its accessibility, but they eventually branch out to find other technologies of use to them.

The author also explains why the traditional Instructional Systems Design (ISD) process, no matter how well done, still comes up short in term of the quality of performance improvement achieved from a training program. It's because all of the thinking and effort came from the trainer will little energy and commitment from the so-called learners. Instead, Rothwell says: "...as work settings become more dynamic and as the individuals become more aggressive in their pursuit of real-time learning to help them meet real-time needs, the ISD-model—which will always in some form remain useful to trainers – needs to be paired up with a corresponding model of the workplace learning process. When it is, training can be “pushed” while learning can be “pulled. The result can be a more powerful impact on individuals and groups.” (pp. 41-42)

According to Rothwell's research, workplace learners go through the following sequence of activities and experiences when the learning process is working well. The learner:

1. Experiences a triggering circumstance.
2. Recognizes the importance of learning.
3. Experiences curiosity about the issue or circumstance that triggered learning.
4. Seeks information.
5. Processes the information.
6. Converts that information into what is useful to the individual and thereby internalizes it into short-term and/or long-term memory.
7. Applies the knowledge in the future.
8. Reflects on what was learned and may apply that newly acquired knowledge to new situations.
9. May experience a double-loop trigger, which means a stimulus to reflect on the learning process, and evaluation of the learning process.

[Author's Note: Learnership practitioners inculcate much of what Rothwell has advocated. They are lifelong learners who seek learning for its practical applications. They operate as free-agent learners across a wide variety of personal, organizational, and community venues always alert to new experiences and environmental factors that present additional information and knowledge. Double-loop learning is something they enjoy because they know that what they already think they know can be modified by new circumstances that push the boundaries of their comprehension.]

Federal Human Capital Development. In September 2000 the U.S. Government Accounting Office published a document entitled: “A Human Capital Self-Assessment Checklist for Agency Leaders (GAO/OCG-00-14G).” The GAO said that enhancing the value of employees is a win-win goal for employers and employees alike. The more an organization recognizes the intrinsic value of each employee; the more it recognizes that this value can be enhanced with nurturing and investment; the more it recognizes that employees vary in their talents and motivations, and that a variety of incentive strategies and working arrangements can be created to enhance each employee’s contributions to organizational performance, the more likely the organization will be to appreciate the variety of employee needs and circumstances and to act in ways that will make sense in both business and human terms.

The GAO asked: Why Should Agencies Conduct a Human Capital Self-Assessment? And they answered: Self-assessment is the starting point for creating “human capital organizations”—agencies that focus on valuing employees and aligning their “people policies” to support organizational performance goals. The GAO’s self-assessment focused on five organizational management responsibilities:

1. Strategic Planning: Establish the agency’s mission, vision for the future, core values, goals and objectives, and strategies
2. Organizational Alignment: Integrate human capital strategies with the agency’s core business practices
3. Leadership: Foster a committed leadership team and provide reasonable continuity through succession planning
4. Talent: Recruit, hire, develop, and retain employees with the skills for mission accomplishment
5. Performance Culture: Empower and motivate employees while ensuring accountability and fairness in the workplace

The GAO also conducted a symposium of leaders from many government organizations, and according to the symposium participants, the demand for faster, cheaper, and better service delivery led their organizations to develop new and more flexible ways of managing people. On the basis of the symposium proceedings, GAO discerned eight interrelated principles common to organizations that value their human capital:

1. Value people as assets rather than as costs.
2. Emphasize mission, vision, and organizational culture.
3. Hold managers responsible for achieving results instead of imposing rigid, process-oriented rules and standards.

4. Choose an organizational structure appropriate to the organization rather than trying to make “one size fit all.”
5. Instead of isolating the “personnel function” organizationally, integrate human resource management into the mission of the organization.
6. Treat continuous learning as an investment in success rather than as a cost to be minimized.
7. Pursue an integrated rather than an ad hoc approach to information management.
8. Provide sustained leadership that recognizes change as a permanent condition, not a one-time event.

As GAO reported at the time, the sense of the symposium participants was that the eight principles should be treated as a whole and that effective human resource management and effective business practices are inseparable.

Software Competency Development. The continuous development of an organization’s workforce is an imperative if the organization intends to remain competitive in its marketplace. This can be accomplished by continuing to educate and build the skills of the current staff and/or through the use of new hires, contractors, and/or partnerships that bring the required capabilities to the organization for integration and use. In the case of the U.S. Department of Defense and its need to build a more professional software development industry, the DOD sponsored a study by the Carnegie-Mellon University Systems Engineering Institute to recommend and design an evolutionary approach for growing a high quality team of software engineers and project managers that could be used throughout the defense industry. An overview of the concept proposed and subsequently implemented is at [Figure 8-4](#). At the *strategic level* of software systems management, progress occurs as individuals and organizations move upward from being part of *Initial* and *Repeatable* levels of systems performance through the *Defined* and *Managed* levels up to the *Optimized* level of performance. At the continuous improvement or *tactical level* of operations, daily cycles of learning and development recur as people, processes, and technology interact on software projects and in training programs. The results of this effort has been quite influential on the industry due to product improvements and cost savings.

[Author’s Note: The concept of documenting knowledge, skills, and abilities required in the performance of employees in various professions and knowledge-based careers, and illustrating a timeline with benchmarks on progress, has proven to be helpful in personnel recruiting, development, and management.]

Workplace Competencies. In [Corporate Quality Universities: Lessons in Building a World Class Work Force](#) (Meister, 1994), the author collates the findings of a number of contemporary reports on the knowledge, skills, and abilities required of productive employees in today’s increasingly competitive workplaces, industries, and the international marketplace. She suggests six

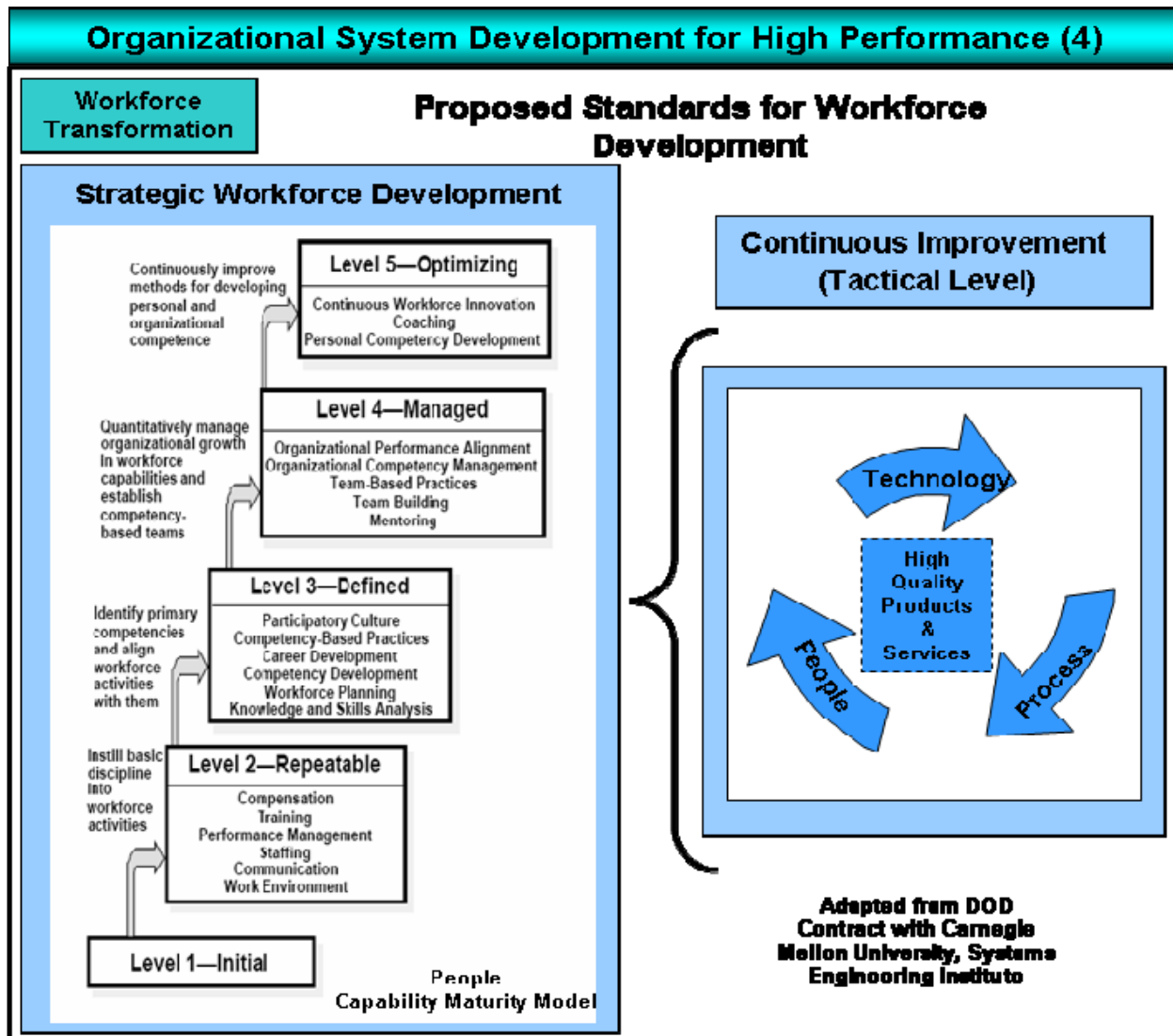


Figure 8-4

skill groups that are essential areas for employee development in order that businesses and organizations maintain their capability to grow, compete, and prosper over the long run. The skill groups are:

1. Learning Skills. Learning skills rank high in importance because an organization's power to introduce change depends on workers' abilities to learn new roles, processes, and skills. "The goal is for continuous improvement to become a natural part of how an employee thinks and behaves on the job" (p.5).
2. Basic Skills (reading, writing, computation, and cognitive reasoning). These skills are more essential than ever in aiding workers to acquire and use information relevant to their positions. Cognitive reasoning appears to be particularly important in that more

complex work environments and task interdependence make applying information correctly an important capability

3. Interpersonal Skills. Individual effectiveness is becoming increasingly linked to team effectiveness which is the driver for organization problem solving and high performance. Good communications skills and knowing how to work cooperatively with co-workers to successfully resolve conflicts and influence action are essential skills in flexible and adaptable organizations.
4. Creative Thinking and Problem Solving Skills. "Today's worker is expected to give constructive input on everything from how to ensure the quality of raw materials used to make a product to how to improve processes and procedures" (p.6). In order to do this, the workers must be capable of responding flexibly at their point of responsibility for production or sales, and be able to apply an acquired set of problem solving skills as difficulties arise.
5. Leadership (visioning) Skills. In today's flatter organization structures, direction will not always be from the top. Instead, all workers are expected to be cognizant of the organization's goals, vision, values, and strategies and be able to proactively elicit commitment from others to pursue shared visions and workplace improvement. Leaders are everywhere in the organization.
6. Self-Development (and self-management) Skills. Having command of basic skills is an essential starting point in today's workplace, but these should be used as a platform for the development of higher-order competencies and continued personal growth. Increased use of multi-skill positions, job rotation, and self-directed work teams within dynamic, changing workplaces require individuals that can think and act effectively within a context of greater responsibility and authority. And, ensuring that one's career security takes precedence over a focus on one's job security.

[Author's Note: With reference to the Learnership Integrated Systems Architecture, Meister's skill set connotes a sense of purpose, order, learning, and development—an evolution of personal and organizational capability on the route toward higher performance. The mutual development of strategic, operational, and performance management skills may be expected as the organization and its employees make progress toward their respective higher levels-of-being. An observation is that when OSD and worker PSD occur in a mutually reinforcing quality learning relationship, the organization rapidly achieves greater internal and external satisfaction.]

Self-Initiated Followership. In Beyond Participative Management (Gilbert & Nelson, 1991), the authors describe the importance of followership as a corollary to effective leadership. Without the former, the latter could not occur. Also, good followership is likely a part of the good leader's behavior. In regard to the quality and customer service movement, they suggest that followership is the behavior that results when individuals think and behave in ways to fully assist and support their colleagues, supervisors, and others as "customers" as well as those normally thought of as the customers.

Gilbert's study of nearly one thousand people's outstanding behavior on the job led to the identification of eight notable characteristics of good followership:

1. Partnership. The willingness to create a partnership relationship with all customers so that their needs and objectives are assimilated and supported
2. Motivation. An enthusiastic attitude ("can do") toward work to satisfy whatever customers want or need
3. Technical Competence. The knowledge and ability to accomplish tasks with excellence, and a willingness to continue to learn
4. Dependability. The willingness to be counted on, be trustworthy, and make contributions
5. Professional Comportment. Presents oneself well in terms of manners, dress, speech, language, cleanliness, tact, and diplomacy
6. Sense of Humor. Demonstrates good cheer, smiles, and shares appropriate humor
7. Positive Working Relationships and Team Play. Avoids negative interpersonal behavior in favor of constructive and cooperative behavior
8. Speaking Up. Willing to share information and educate others for their improved understanding and action.

[Author's Note: This perspective relates well to the OSD construct in that it illustrates an often overlooked aspect of teamwork—the act of followership. It also emphasizes the idea that organizational quality may be defined through the goal of customer satisfaction—in this case, the satisfaction of all customers including one's colleagues and supervisors.]

Employee Involvement and Teamwork. In the book High-Involvement Management (Lawler, 1986), the author makes the case for greater use of participative management by U.S. organizations. He states that: "The societal, business, product, and work force changes that have occurred argue strongly for a change in management. Clearly, American organizations need to be more effective simply to be competitive...It is unlikely that dramatic improvements can come about through the use of traditional management approaches" (p.19). He believes that participative management suits today's technologies, work force, and social conditions because of its potential to create a knowledgeable, motivated, responsive work force with the capacity to handle the increasingly complex, challenge, and pace of change regularly experienced in the work environment. Greater employee participation in an organization occurs as: (1) decision-making power moves downward, (2) information flows up and down more directly to those in need of it, (3) rewards are tied to contributions to organizational performance, (4) knowledge and skills of all employees are used more completely, and (5) more of the organization is involved.

A related perspective to employee involvement is offered in Teamwork (Starcevich & Stowell, 1990). The authors describe how organization groups become teams and how the dynamics of groups can be managed. The focus is on team process with the assumption that skilled team process management leads to effective team performance. The authors describe effective teams as follows: "Teams work at building spirit and commitment; they talk about how they are doing, and they are willing to invest time and money to protect and enhance the basic team fabric and integrity. In a team, people care about each other and are concerned about how their actions and attitudes affect each other" (p.12). A five-point Team Effectiveness Model is presented that delineates the interdependence among: (1) leadership—is flexible and participative, (2) direction – goals, vision, values, priorities, and strategies are clearly defined, (3) structure/resources—responsibilities are defined, and supportive administrative procedures and resources are available, (4) atmosphere—cohesion and caring are emphasized, and (5) processes—team periodically evaluates its process, and effective communications and consensus decision making are encouraged.

[Author's Note: The significance of employee involvement and teamwork in respect to the learnership model may be understood by focusing on two aspects of organizational life. The first concerns the environment or context within which most organizations operate. For many private and public organizations, increasing turmoil is an apt description of their immediate environment. Rapid change in customer needs, markets, and competition, coupled with a general increase in situational complexity and information overload make maintaining customer focus and satisfaction an essential task for organization survival. The second area considers the hierarchical and typically bureaucratic internal structure of today's dominant public and private sector organizations. Organizations of this type are built for control in orderly environments, rather than speed and responsiveness in dynamic environments. What greater employee involvement and efficient teamwork do is encourage greater management delegation of problem solving and decision making, establish a foundation for greater employee empowerment, motivate employees through task responsibility and ownership, assure information and other resources are distributed more efficiently, and encourage employees to improve customer service and satisfaction. In the OSD portion of the learnership model, customer satisfaction is the determinant of organizational quality, and the process of learning what must be achieved and how it should be done is what well-led and cohesive teams are expected to accomplish.]

Overview: Decision-Making

*Effective managers do not merely wait for problems to arise;
they actively look for problems and opportunities*
James Stoner

Rational Thinking and Management. In their book The New Rational Manager (1981), Charles Kepner and Benjamin Tregoe argue for a rational, team-based approach for organizational change—a reality for all organizations desiring to stay competitive in a changing world. They state that: "A new idea or an expectation, in itself, will seldom bring about change. On the other hand, change can be very attractive if it is a product of a new idea or expectation that

appears to be in the best interests of the people who are expected to adopt it, if it is accompanied by the means for its fulfillment, and if it results in recognition and approval. To improve an organization, we must introduce good ideas, establish the means for making them work, and provide a visible payoff for the efforts involved.” (p.20)

The essence of the Kepner-Tragoie approach is to use effective teamwork and decision-making focused on four choice-making functions required in all organizations: situation appraisal, problem-analysis, decision analysis, and potential problem analysis. These may be summarized as follows:

1. Situation Appraisal. Four activities are involved which are: (1) Recognize Concerns—deviations, threats, and opportunities, (2) Separate Concerns—expand/combine and add sub-concerns, (3) Set Priority—decide on importance of concerns and order to be used, and (4) Plan for Resolution—select a process (PA, DA, PPA) for action and an implementation approach.
2. Problem Analysis (PA). Explain and fix a deviation from a plan: (1) Prepare a Deviation Statement, (2) Specify What Is and Is Not, (3) Develop Possible Causes, (4) Test for Probable Cause, and (5) Verify Findings.
3. Decision Analysis (DA). Follow five sequential steps for making choices: (1) Prepare a Decision Statement (purpose, level), (2) Establish Objectives, (3) Classify Objectives, (4) Generate Alternatives, and (5) Compare and Choose.
4. Potential Problem Analysis (PPA). Follow five steps to ensure success of problem resolution activities: (1) Action Plan Statement, (2) Anticipate Problems, (3) Anticipate Likely Causes, (4) Select Action, and (5) Provide for Information.

What is clear from the explanation of the Kepner-Tragoie approach for rational management is that it works best when organizational leaders embrace the recommended techniques and lead other managers and the workforce in their application. Individual teams and groups can make some progress on localized issues, but the real benefit comes from organizational-wide use of the methodology. At its core is the need for effective decision-making, the ability and commitment to use rational thinking when making choices in setting organizational direction, improving organizational operations, and evaluating organizational progress.

Managing Our Minds. According to authors Gillian Butler and Tony Hope of Managing Your Mind: The Mental Fitness Guide, (1995) “Thinking straight is not always easy: It is harder to think logically, and to avoid being led astray by illogical pitfalls, than it would seem...Far more frequently than we realize we use thinking strategies that are based loosely on fact, or we make one of a number of the standard mistakes studied and analyzed by psychologists.” (p.400) In Chapter 33 on thinking straight they list four common mistakes in thinking are:

1. Being Misled by Theories, Beliefs, and Assumptions. They say that opinions can easily slip into becoming prejudices, and these prejudices tend to set up a mental framework that causes us to discount, distort, or deflect new information we encounter. They say

that we should (1) look specifically for evidence that disconfirms our previous beliefs, (2) take note of new thinking and reflect on it to see if it should be the basis for changing our views, (3) be aware of our preferences and inclinations as guard against allowing their excessive intrusion, and (4) recognize that people's perspectives do change incrementally over time.

2. Being Misled by What Springs to Mind. The information that most readily comes to mind has a disproportionate effect on opinions and reasoning in general...The more recent an event, the more likely it is to influence our judgment. They caution to (1) avoid snap judgments, (2) keep feeling from being excessively engaged, and (3) allow room for other's views in our thinking.
3. Being Misled by the Influence of Others. There are pitfalls in the advice to consider the views of other—they make have too much influence on us because of our regard for the other people. Be aware of the “halo effect”, the fallacious use of “scientific evidence”, and being wowed by the “presentation skills” of others.
4. Being Misled by Associations. The fact that others use preconceived similarities or other associations to convince us of their views. The issues or problems may not really be similar and the results could be significantly different. We should do our own assessment of relationships, cause and effect, and analogies, and make sure our expectations are realistic whatever the situation.

Also concerning *thinking straight*, the authors advise their readers that the science of numerical facts and data is complex, but that everyone should know and avoid common errors by knowing four basic statistical rules:

1. The Law of Large Numbers. The larger the numbers on which information is based, and the more random the sampling involved, the more valid our judgment will be.
2. Comparison, or Control Groups. In the absence of comparison groups and of knowledge of the total population involved, the more unlikely it is that that data and information can be trusted and useful in discussion and argument.
3. Group-Individual Predictions. The behavior of a group does not tell use with certainty the behavior of a particular member of that group.
4. Correlation and Cause. It is often assumed because two things occur together that one causes then other. This is particularly true when the subject has to do with social issues as compared to scientific factors.

On the subject of *making decisions* in Chapter 32, Butler and Hope state that: “In both our domestic life and at work, we need to make decisions, and in order to make good decision we need to be able to think clearly and weigh up evidence effectively...They say that it is impossible to make the ‘perfect decision’ as every course of action will lead to more choices and throw up some unexpected difficulties.” (p.388) Six strategies to help in making decisions are offered:

1. The Balance Sheet. Make a list of the advantages and disadvantages concerning a course of potential action. Assign a weighting system to the items on each list, and draw some preliminary insights and conclusions on the data developed.
2. Trial Runs and Time Projection. Choose one course of action and build a scenario for some time in the future (e.g. 6 months) as to what the likely results could be. Do the same independently for the other options and then compare the results.
3. A Sounding Board. Select a few other people whose knowledge, experience, or similar concerns would enable them to willingly dialogue with us on the subject or issue. See what their views are and allow that information to become part of the decision data we apply to our situation.
4. Information Gathering and Sifting. Identify and collect available information concerning the most significant aspects of the issue to be considered or choice that needs to be made.
5. Dealing with Chain Reactions. Identify the relevant topics, issues, and timelines that pertain to the issue or choice. Time-phase them in the order they will probably occur, allow for unexpected consequences and alternative actions, and predetermine how future events will be decided and reconciled.
6. Keeping up the Energy Reserve. Recognize that fatigue and preoccupation are interfering factors that can drain our commitment and energy. Plan to allow the time and other resources necessary to stay on course.

[Author's Note: This section begins with a look at some human aspects of decision-making. How we choose to think, and the mental and emotional energy we apply to our decision-making effort, matters to the efficiency and effectiveness of our results.]

A Role for Intuition and Emotion. In "Making Management Decisions: The Role of Intuition and Emotion," (Feb 1987) Herbert Simon of Carnegie-Mellon University, argues that the development of decision-making tools such as operations research, management science, and expert systems have not diminished significantly the need for the use of intuition and emotion in the interpersonal, and face-to-face aspects of decision-making. Specifically, he addresses what may be termed the judgmental, illogical, and irrational aspects of managerial decision-making.

Simon credits physiological research on "split brains" (severing the corpus callosum between the two hemispheres) with showing that there is a division of labor between the left and right brain, and that each appears through study to have its own, but somewhat overlapping, mental and emotional capabilities. Intuition and emotion tend to be right brain capabilities and the source of non-logical thought that has been embedded, over time, and available to contribute to decision-making without have to go through the detained rational processing normally attributed to left

brain sequential activity. Experts appear to have developed these right brain repositories of “judgment and knowledge” and have no need to exercise of use them in a planned and controlled manner.

Simon makes a major point by stating that the intuition used by the expert is very different than the intuition used by the emotionally-driven worker or manager. For the former, intuition has been developed over years of learning and experience and can therefore be trusted to contribute meaningfully to the problem at hand. For the emotionally-driven person, non-rational activity causes results that do not contribute, but actually undermine, the need to make appropriate decisions. This situation occurs with regularity when stress has become a factor in getting decisions made and problems solved. Simon advises that managers seek to become role models for effective decision-making and problem-solving by following these four principles:

1. Solving the problem takes priority over looking backward to it causes. Initially, backward looks should be limited to diagnosing causes; fixing responsibility for mistakes should be postponed until a solution is implemented.
2. The manager accepts personal responsibility for finding and proposing solutions instead of seeking to shift that responsibility either to superiors or to subordinates, although the search for solutions may, of course, be a collaborative effort involving many people.
3. The manager accepts personal responsibility for implementing action solutions, including securing the necessary authority from above, if required.
4. When it is time to look backward, fixing blame may be an essential part of the process, but the primary focus of attention should be on what can be learned to prevent similar problems from arising in the future.

[Author’s Note: The reader is reminded that Chapter 3 on Pattern Recognition Competency addresses the left/right brain dichotomy and the value of having both a structured (sensing) and a relationship (intuition) based approach to thinking and behavior.]

Making Better Decisions. In a book entitled: Smart Choices: A Practical Guide to Making Better Decisions (1999), authors John Hammond, Ralph Lee, and Howard Raiffa present a general framework for decision-making. They say that everyone can learn to make better decisions and they offer an eight step process:

1. Work on the Right Decision/Problem (Chapter 2). Define the decision problem to solve the right problem. Scope out the issue in need of decision- the real objective to be achieved.
2. Specify the Objectives (Chapter 3). Clarify what you are trying to achieve with the decision. Determine the primary objective and those that only support that objective.

3. Create Imaginative Alternatives (Chapter 4). Create better alternatives to choose from. Keep an open mind and do own thinking before engaging others. Narrow the choices only after full discussion and consolidation.
4. Understand the Consequences (Chapter 5). Describe how well each remaining alternative meets the objectives. Make a list of likely consequences (pros/cons) for each alternative and compare the results.
5. Grapple with the Tradeoffs (Chapter 6). Be prepared to propose priorities and make tradeoffs between alternatives. Systematically compare tradeoffs that currently need to be made and those that may need to be made at a later time.
6. Clarify the Uncertainties (Chapter 7). Identify and act to reduce uncertainties that continue to be problematical. Prepare a risk profile based on the uncertainties concerning both the *impact* and the *likelihood* of occurrence of each major uncertainty.
7. Think Hard about Risk Tolerance (Chapter 8). Take time to review the group's and/or leader's degree of tolerance for dealing with risk factors. Determine how much risk to accept and mitigation strategies to reduce or avoid too much risk.
8. Consider Linked Decisions (Chapter 9). Plan ahead to effectively coordinate current and future decisions. Look for cross-cutting dependencies among the decisions and maintain flexibility on when certain decisions are needed to be made.

Hammond et al advise that certain psychological traps arise in decision-making and it is necessary to avoid the tricks our minds typically play. Their list of cautions include: (pp.191-212)

1. Over-relying on first thoughts – the *anchoring* trap.
2. Keeping on keeping on – the *status quo* trap.
3. Protecting earlier choices – the *sunk-cost* trap.
4. Seeing what we want to see – the *confirming-evidence* trap.
5. Posing the wrong question -- the *framing* trap.
6. Being too sure of ourselves – the *overconfidence* trap.
7. Focusing on dramatic events – the *recallability* trap.
8. Neglecting relevant information – the *base-rate* trap.
9. Slanting possibilities and estimates – the *prudence* trap.
10. Seeing patterns where none exist – the *outguessing-randomness* trap.
11. Going mystical about consequences – the *surprise by surprises* trap.

The authors advise that: “The only way to exert control over your life is through decision-making...Be proactive, take charge of your decision-making, strive to make good decisions and to develop good decision-making habits. You’ll be rewarded with a fuller, more satisfying life.” (p.234)

Ethical Business Decisions. According to Gerald Cavanaugh, author of American Business Values (1984), there are three prominent ethical models affecting business decisions: Utili-

tarianism, Theory of Justice, and Theory of Rights: Depending on the model one has in mind, significant differences exist in defining the problem, the alternative solutions to be considered, and the viability of the decision-making process.

1. Utilitarianism. Emphasis is on the greatest good for the greatest number. Advocated by Adam Smith and David Ricardo. *Strengths* include: justifies a profit maximization system; promotes a system of exchange beyond “this firm;” and encourages entrepreneurship, innovation and productivity. *Weaknesses* are: difficulty in quantifying all important elements; self-interest can dominate, may abridge a person’s rights; and may neglect the less powerful segments of society.
2. Theory of Justice. Focus is on the equitable distribution of society’s benefits and burdens. Advocated by Aristotle and Rawls. *Strengths* include: follows the democratic principle; prevents a society from becoming status or class conscious; and ensures that minorities, handicapped, and the poor receive opportunities and a fair share. *Weaknesses* are: can result in less risk, incentive and innovation; and encourages a “sense of entitlement.”
3. Theory of Rights. Emphasis is on not violating anyone’s freedom. *Strengths* include: ensures respect for others’ property and personal freedom; and parallel’s the political “Bill of Rights.” *Weakness* is: it can encourage individualistic, selfish behavior.

Cavanaugh also proposes a flow diagram for ethical decision-making that follows the traditional data gathering, information analysis, and decision-making or judgment—and includes the three ethical criteria just defined. The process is:

1. If the act or policy suggested *is appropriate according to ALL three ethical criteria*, the act or policy *is ethical* and should be pursued.
2. If the act or policy suggested *is not appropriate according to ALL three ethical criteria*, the act or policy *is not ethical* and should not be pursued.
3. If the act or policy suggested *is not appropriate on one or two of the three criteria*, it is *probably not ethical*—unless the remaining criterion is overwhelmingly more important or there are no other incapacitating factors—then maybe it can be considered ethical.

[Author’s Note: It is useful to recognize that the Utilitarian and Theory of Rights models closely parallel the socio-economic and political conservatism for which the American Republican Party is noted. On the other hand, the Theory of Justice model is more representative of the Democratic Party platforms of recent times. This means that problems are framed and alternative solutions chosen in accordance with these preexisting viewpoints—and decision-making cannot help but be biased, accordingly.]

Swampy Problem Contexts. Robert Biller’s article entitled “Public Policy and Public Administration: Implications for the Future of Cross-Cultural Research and Practice” (Korean Journal, Autumn 1978) includes a useful two by two table on the relationship between organization type

(*bureaucratic vs contingent*) and the context (*bedrock vs swampy*) within which a problem exists. In essence his research shows that there is no one right organization structure for every situation or contextual environment. For example:

1. “Bureaucracy can be described as that form of organization most likely to be used effectively when conditions of stability, certainty, and predictability either exist or can safely be assumed to proximately exist...the more surprise-free a problem and its context (extent to which predictions come true), the more likely bureaucratic decision rules are to prove effective.” This is termed the ‘bedrock’ context which may be managed well within a bureaucracy.” (p.257)

2. “Conversely, we are discovering that the more surpriseful a problem and its context are (extent to which predictions do not come true), the more likely contingent decision rules are to prove useful. This is termed the ‘swampy’ context which may be better “managed within a contingency organization structure.” (p.257) The alternate decision rules that apply are compared in Figure 8-5.

Alternate Decision Rules

Management Variables	<u>Decision Rules</u> Bureaucratic for Bedrock	<u>Decision Rules</u> Contingency for Swampy
Planning - Scale - Scope - Time Horizon	Comprehensive General Long-Range	Incremental Specific Short-Range
Structure - Orientation and Strength - Nature of Organization - Key Value Amplified - Redundancy of Information	Maintenance Permanent Responsibility Minimize	Adaptation Temporary Responsiveness Maximize
Management Process - Preferred Management Strategy - Operational Processes - Major Presumed Risk - Key Intra-Organization Question	Exception Functional Inefficiency Consistency/Equity	Situational Project Catastrophic Error Issue Specific/Efficacy

Figure 8-5

[Author’s Note: The learnership practitioner described in this book will need to become more and more familiar with the issues, challenges, and workforce preferences that predominate in today’s fast-paced, constantly changing organizations. The flat new knowledge-based world

emphasizing horizontal relationships and boundary-spanning responsibilities requires adaptive management, virtual operations, and client responsiveness. More often than not, the decision context is likely to be quite “swampy.”]

Vigilant Decision-Making. In Crucial Decisions: Leadership in Policymaking and Crises Management (Janis, 1989), the author presents a model for effective policy and decision making, and discusses the reasons why policymakers are so often seen to be deviating from moral, humanitarian, and rational principles in their actions. Janis focuses primarily on top-level policymakers, and his thoughts apply equally in the public and private sectors. His views have particular importance, however, in public sector deliberation and decision-making because of the complexity of social issues and their broad impact on large numbers of individuals and organizations in the community.

Janis builds on an earlier "Presidential decision-making model for foreign policy" by Alexander George to create his model entitled: “Constraints Creating Trade-Off Dilemmas in Policymaking.” The features of the model are significant in that they illustrate the difficulty political leaders, in particular, have in legislating and implementing public policy. The model defines the policy making objective to be "the search for high quality decisions via *vigilant problem solving*." Three sets of constraints are identified which individually or together reduce the quality of decisions and policy. The constraints are:

1. Cognitive Constraints. Limited time, lack of expertise and other policy making resources for dealing with complex issues
2. Affiliative Constraints. The need for acceptability, consensus, and social support
3. Egocentric Constraints. The desire for prestige and other self-serving motives

Each leader has to weigh the impact of these constraints, to make compromises and trade-offs, and to take action that represents a majority view in the community. Unfortunately, the constraints are often substantial and the ability of policymakers rather limited, thereby causing the resulting policy to be less effective than the community requires. Janis presents a vigilant problem solving strategy to assist leaders in decision making and policy making. A summary of his problem-solving approach to decision-making framework, which focuses on the critical questions that must be answered, follows: (p.91)

1. The Challenge. What is the exact threat or opportunity? Clearly identify it.
2. Initial Problem Assessment.

Step a. Formulating the problem. What requirements should be met? What seems to be the best direction of solution?

Step b. Using information resources. What prior information can be recalled or retrieved? What new information should be obtained?

Step c. Analyzing and reformulating. Any additions to or changes in the requirements? Any additional alternatives? What additional information might reduce uncertainties?

Step d. Evaluating and selecting. What are the pros and cons of each alternative? Which alternative appears to be best? Any requires Unmet? How can potential costs and risks be minimized? What additional plans are needed for implementation, monitoring, and contingencies?

3. Ensure absence of following decision-making defects.

- a. Gross omissions in survey of objectives
- b. Gross omissions in survey of alternatives.
- c. Poor information search.
- d. Selective bias in processing information at hand.
- e. Failure to reconsider originally rejected alternatives.
- f. Failure to examine some major costs and risks of preferred choice.
- g. Failure to work out detailed implementation, monitoring, and contingency plans.

4. Move to Closure.

- a. Internal consolidation of the choice – playing up advantages, refuting unwelcome information, and soliciting supportive information
- b. Social commitment to the choice – Announcing it to interested parties, and promoting it among implementers and evaluators who are uninterested or convinced.

[Author's Note: Janis's viewpoint is helpful for understanding the learnership model in that it provides insight into the conflicting and paradoxical environment of a major governmental function--policymaking. As elected representatives and public administrators pursue agendas for the benefit of the community and the common good, they must navigate among numerous personal, political, social, economic, and technical constraints that make the goal of optimizing social development extremely difficult to achieve. The objective, of course, would be to approach a policy or social issue with minimum constraints. To do so requires knowledge of issue factors, significant social consensus and support, and less concern for one's own interests.]

Decision-Making Model. The model at Figure 8-6 illustrates selected aspects of the perspectives offered in this section. Shown in the center are the basic eight areas for making choices within the larger decision-making framework. On the left are five management activities that employ decision-making; on the right are eleven psychological traps that can derail effective decision-making; and on the bottom there are three constraints of which policymakers need to be aware to accomplish the trade-offs that accompany complex, governmental decision-making.

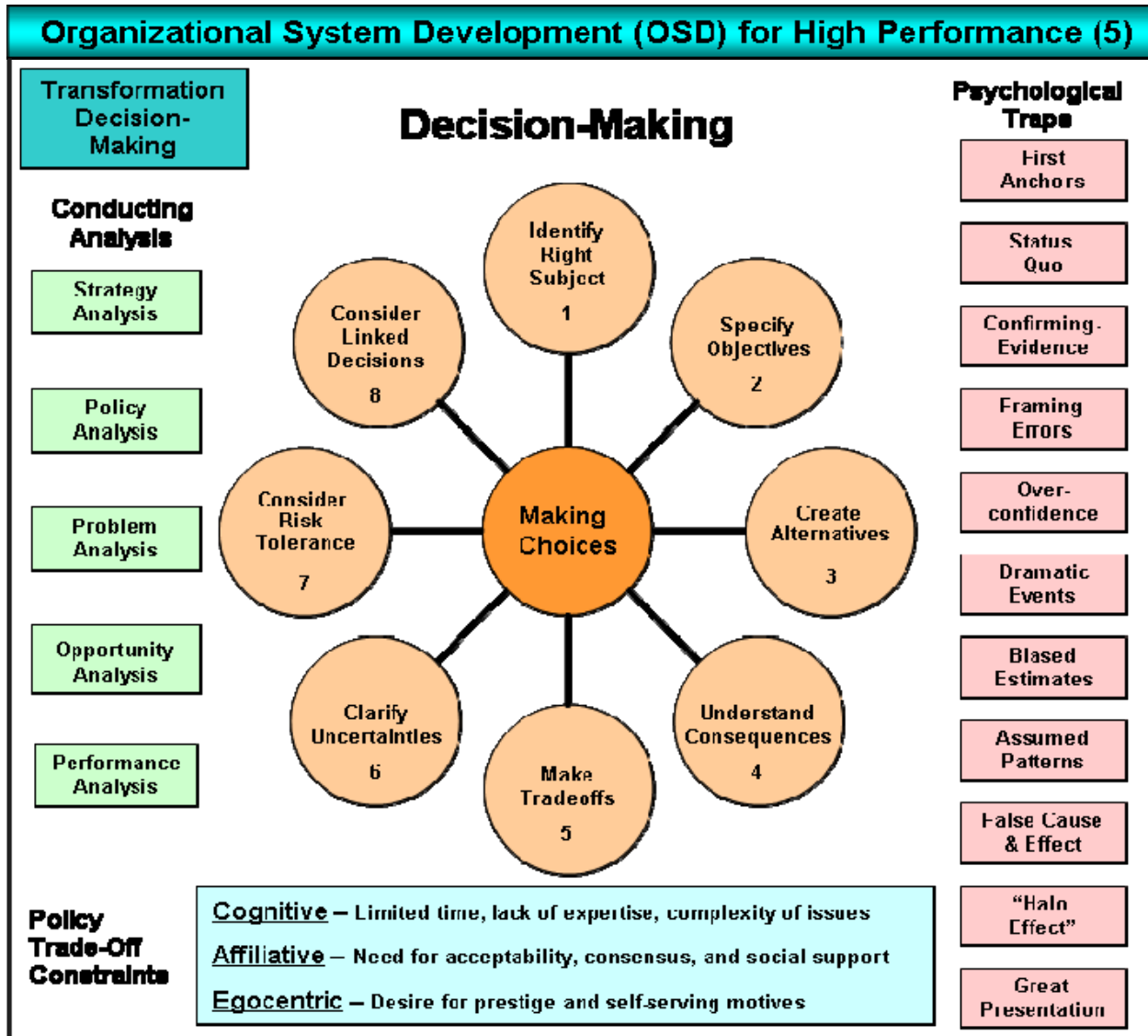


Figure 8-6

Overview: Information Technology Transformation

The successful companies of the next decade will be the one that use digital tools to reinvent the way they work.
 Bill Gates

Information Architecture. In *Managing Information Strategically* (1993), James McGee and Laurence Prusak explain that creating an information architecture is a fundamental business requirement. This is because the goals and priorities of the business are reflected in how business functions and processes operate, and the manner in which information flows through the business needs to be recorded, managed, and improved before any significant investment in an IT infrastructure is consummated. The information architecture addresses such topics as:

1. The Environment. Availability and quality of external data and information; universe of competitors and their activities; current knowledge about the global political and economic spheres; and knowledge about developing technologies.
2. Human Capabilities. Short-term memory limits; information processing and decision-making styles; and long-term memory strengths and pattern matching skills.
3. Technology Limits. Database technology; communication networks; and group support technologies. (p.133)

According to the authors there are two audiences for the information architecture documents: (1) the *business client* who is concerned with the principles of information management that should be used, the budget involved, and the time it will take to accomplish improvements suggested in the information architecture; and (2) the *technical specialists* who will normalize entity relation diagrams and data models; and prepare data dictionaries, database management designs, and the data structures that will subsequently be used as a basis for the development and implementation of a IT architecture and an investment portfolio.

Regarding the goals of an information architecture, they say that: “An information architecture articulates what information is most important to the organization. It becomes the information component of a strategic vision or an information vision.” (p.136) It is significant here to note that the objective is not to define, access, and manage ALL organizational information—only that which is truly relevant, accurate, and timely that can serve management’s need to be strategic, proactive, and customer responsive. The authors make the point that the information technology architecture is not: (1) a technology architecture, (2) a data modeling effort, nor (3) an information system architecture. It is, in fact, a business management tool created and used by leaders and managers—not the CIO.

McGee and Prusak are astute to the challenge of creating the information architecture in that they recognize that: “The information architect must strike a balance between the organization’s information needs and technology limitations. The architect must look to the business strategy to decide what information is important to the organization.” (p.141)

[Author’s Note: The information architecture work being described is the very work a knowledge architect or engineer might be doing in today’s organizations. Conducting performance reviews of core organizational business processes—and paying attention to the prioritized information and knowledge needs of people working in those processes—should be part of the strategic planning initiative under the category of “strengths and/or weaknesses.” Unfortunately, the information architecture function is either not accomplished or thrown over the transom to the CIO organization wherein it is not usually seen to be as important as developing an IT architecture.]

Quality Assessment of IT Governance. The IT Governance Institute (www.itgi.org) was established to advance international thinking and standards for *directing and controlling an enterprise’s information technology function*. Effective performance assessment by enterprise

C-level executives of their IT governance function (often led by the CIO) helps ensure that the IT function:

1. Is clearly supporting stated business goals
2. Optimizes business investments in IT
3. Appropriately manages IT-related risks and opportunities
4. That value, risk, and control constitute the core of IT governance

To advance their purpose, the ITGI developed the *Control Objectives for Information and Related Technology (COBIT) 4.1* standard, and state that: “For IT to be successful in delivering against business requirements, executive management should put an internal control system or framework in place. The *COBIT control framework* contributes to these needs by: (1) making a link to the business requirements, (2) organizing IT activities into a generally accepted process model, (3) identifying the major IT resources to be leveraged, and (4) defining the management control objectives to be considered.” (p.5) The specific *IT governance focus areas* through which the COBIT framework assures good IT governance are: (p.6)

1. Strategic Alignment. Focuses on *ensuring the linkage of business and IT plans*; defining, maintaining, and validating the IT value proposition; and aligning IT operations with enterprise operations.
2. Value Delivery. Is about executing the [IT] value proposition throughout the delivery cycle, *ensuring that it delivers the promised benefits against the strategy*, and concentrating on optimizing costs and proving the intrinsic value of IT.
3. Resource Management. Is about the *optimal investment in, and the proper management of critical IT resources*: applications, information, infrastructure and people. Key issues relate to the optimization of knowledge and infrastructure.
4. Risk Management. Requires risk awareness by senior corporate officers, a clear understanding of the enterprise’s appetite for risk, understanding of compliance requirements, *transparency about the significant risks to the enterprise*, and embedding of risk management responsibilities in to the organization.
5. Performance Measurement. *Tracks and monitors strategy implementation, project completion, resources usage, process performance and service delivery*; using for example, balanced scorecards that translate strategy into action to achieve goals measurable beyond conventional accounting.

Turning now to how COBIT meets the need for a control framework for IT governance, the COBIT was created with the main characteristics of being business-focused, process-oriented, controls-based, and measurement-driven.

1. Business-Focused: “The COBIT framework is based on the following principle: ‘To provide the information that the enterprise requires to achieve its objectives, the enterprise needs to invest in and manage and control IT resources using a structured set of

processes to provide the services that deliver the require enterprise information.” And, that the information criteria used to rate the quality of the information being made available are: (pp.10-11)

- a. Effectiveness. Deals with the information being relevant and pertinent to the business process as well as being delivered in a timely, correct, consistent and usable manner.
- b. Efficiency. Concerns the provision of information through the optimal (most productive and economical) use of resources.
- c. Confidentiality. Concerns the protection of sensitive information from unauthorized disclosure.
- d. Integrity. Relates to the accuracy and completeness of information as well as to its validity in accordance with business values and expectations.
- e. Availability. Relates to information being available when required by the business process now and in the future. It also concerns the safeguarding of necessary resources and associated capabilities.
- f. Compliance. Deals with complying with the laws, regulations and contractual arrangements to which the business process is subject, i.e., externally imposed business criteria as well as internal policies.
- g. Reliability. Relates to the provision of appropriate information for management to operate the entity and exercise its fiduciary and governance responsibilities.”

While the information criteria (above) provide a generic method for defining the business requirements, defining a set of generic business and IT goals provides a business-related and more refined basis for establishing business requirements and developing the metrics that allow measurement against these goals. Every enterprise uses IT to enable business initiatives, and these can be represented as business goals for IT...The IT goals, in turn, define the IT resources and capabilities (the enterprise architecture for IT) required to successfully execute the IT part of the enterprise strategy.” (p.11)

1. Process-Oriented: “To govern IT effectively it is important to appreciate the activities and risks within IT that need to be managed. They are usually ordered into the responsibility domains of plan, build, run, and monitor. Within the COBIT framework, these domains are called: (pp.12-13)
 - a. Plan and Organize. This domain covers strategy and tactics, and concerns the identification of the way IT can best contribute to the achievement of the business objectives.

- b. Acquire and Implement. To realize the IT strategy, IT solutions need to be identified, developed or acquired, as well as implemented and integrated into the business process.
 - c. Deliver and Support. This domain is concerned with the actual delivery of required services, which includes service delivery, management of security and continuity, service support for users, and management of data and operational facilities.
 - d. Monitor and Evaluate. All IT processes need to be regularly assessed over time for their quality and compliance with control requirements. This domain addresses performance management, monitoring of internal control, and regulatory compliance.”
2. Controls-Based. “Across the four domains (above) COBIT has identified all 34 IT processes that are generally used. The list is believed to be comprehensive and that it may be used to verify the completeness of activities and responsibilities. However, the need not all apply, and even more, they can be combined as required by each enterprise. Effective controls reduce risk, increase the likelihood of value delivery and improve efficiency because there will be fewer errors and more consistent management approach.” These controls should be managed as part of the enterprises overall system of internal management controls; and they have impact at three levels in the enterprise: (pp.13-16)
- a. At the *executive management level*, business objectives are set, policies are established, and decisions are made on how to deploy and manage the resources of the enterprise to execute the enterprise strategy.
 - b. At the *business process level*, controls are applied to specific business activities. Most business processes are automated and integrated with IT application systems, resulting in many of the controls at this level being automated as well.
 - c. To support the business processes, *IT provides IT services*, usually in a shared service to many business processes, as many of the development and operational IT processes are provided to the whole enterprise, and much of the infrastructure is provided as a common service.”
3. Measurement-Driven. “Obtaining an objective view of an enterprise’s own performance level is not easy. What should be measured and how? Enterprises need to measure where they are and where improvement is required, and implement a management tool kit to monitor this improvement. COBIT deals with these issues by providing: (p.17)
- a. *Maturity models* to enable benchmarking and identification of necessary capability improvements

- b. *Performance goals and metrics* for the IT processes, demonstrating how processes meet business and IT goals and are used for measuring internal process performance based on balanced scorecard principles
- c. *Activity goals* for enabling effective process performance”

A generic maturity model is provided that may be tailored for each COBIT IT process. Six levels of competency are defined, and performance is measured through review of the intent of the process and the actual level of accomplishment: (p.19)

<u>Level 0</u>	Non-existent
<u>Level 1</u>	Initial/Ad Hoc
<u>Level 2</u>	Repeatable, but Intuitive
<u>Level 3</u>	Defined Process
<u>Level 4</u>	Managed and Measurable
<u>Level 5</u>	Optimized

[Author’s Note: The COBIT framework provides a way for internal and external leaders and stakeholders to evaluate whether the IT function is being professionally managed and performed using available best practices, and whether the results of that effort are, in fact, meeting the expectations and directions of enterprise business function owners. Considering the huge expense of IT investments, and the well documented difficulty in determining the return on IT investments, this extra care by corporate level leaders should stimulate management attention and reduce unnecessary cost.]

Federal Enterprise Architecture. The U.S. Federal Government is one enterprise that has recognized the essential need for (1) a standardized management process for preparing, documenting, and implementing a set of standardized business and information technology architectures, and (2) the need to link its billions of dollars of IT investments to prioritized business goals and technology drivers. Computer Associates International (CAI) prepared a white paper entitled: “Federal Enterprise Architecture: Realigning IT to Efficiently Achieve Agency Goals” (June 2004) which provides an excellent summary of the purpose and contents of this federal program. The highlights are:

1. The goal of an EA is to create an IT architecture that helps map an organization’s business processes with its IT systems.
2. The government’s FEA initiative was designed to unify currently disconnected information “silos” that have taken up residence in virtually every federal agency over the last few decades, and therefore to make the delivery of agency services more efficient.
3. The gap between IT capability and Business needs cannot be allowed to continue—EA can build a critical bridge between technological and business strategies.

4. The greatest benefits being reported by federal agencies include: (1) lowers the cost of identifying technologies, (2) lowers the cost of complying with standards, (3) reduces redundant investments, and (4) promotes technology reuse.
5. Proponents say that EAs address key pain point in federal organizations such as: (1) speeding daily operational functions, (2) improving security, (3) taking the need for mobility, (4) enabling greater productivity, and (5) shrinking IT expenses.
6. EAs improve the ability to share data across agency networks. The current inability to share information and collaborate on specific IT projects, for example, is considered an enormous national security problem.
7. EAs constructs can help by defining the processes and technologies to provide and secure trusted communities of interest by persons with proper security authentication, authorization and clearance levels.
8. To create a relevant, useable EA, and organization must consider three phases: Design (Build It), Implementation (Make it Work), and Maintenance (Realize the Benefits).

The core of any organization consists of its assets, which in addition to its people and capital also include processes, data, applications and technology. When designing an EA, an organization must create an architecture that enhances the relationships of these assets to each other.

Conceptual Overview of IT Office Functions. Understanding the IT function of any sizable organization, or even larger business enterprise, requires understanding the major responsibilities typically granted by the executive leadership board and *how those responsibilities are integrated and optimized to achieve alignment with enterprise goals and cohesion among enterprise functions*. Figure 8-7 illustrates the interdependent responsibilities and sub-functions performed by the Enterprise IT office if it is to at least maintain, if not actually transform itself into being a leading competitor in its market space.

1. Enterprise Leadership. Executive leaders are responsible for preparing the enterprise strategy consisting of goals and objectives, providing the policy and directives necessary for organizational components to conduct their respective functions, and directing the senior IT leader or Chief Information Officer (CIO) to prepare an IT strategic plan and update it as appropriate. The IT strategic plan must take into account all the sub-functions required to achieve the business and IT plans, and to follow the approved IT governance process. Management efficiency is directly related to the quality of the IT governance process and the return on IT investments.
2. Systems Integration. IT systems consist of the operational platforms (e.g., personal computers, remote communications devices), workload applications (e.g., workflow tools, portals), data/stores (e.g., databases, information taxonomies), security protocols (e.g., information classification, access management) and network hardware (e.g., telecommunication circuits, bandwidth). Highly reliable, improvable, and maintainable

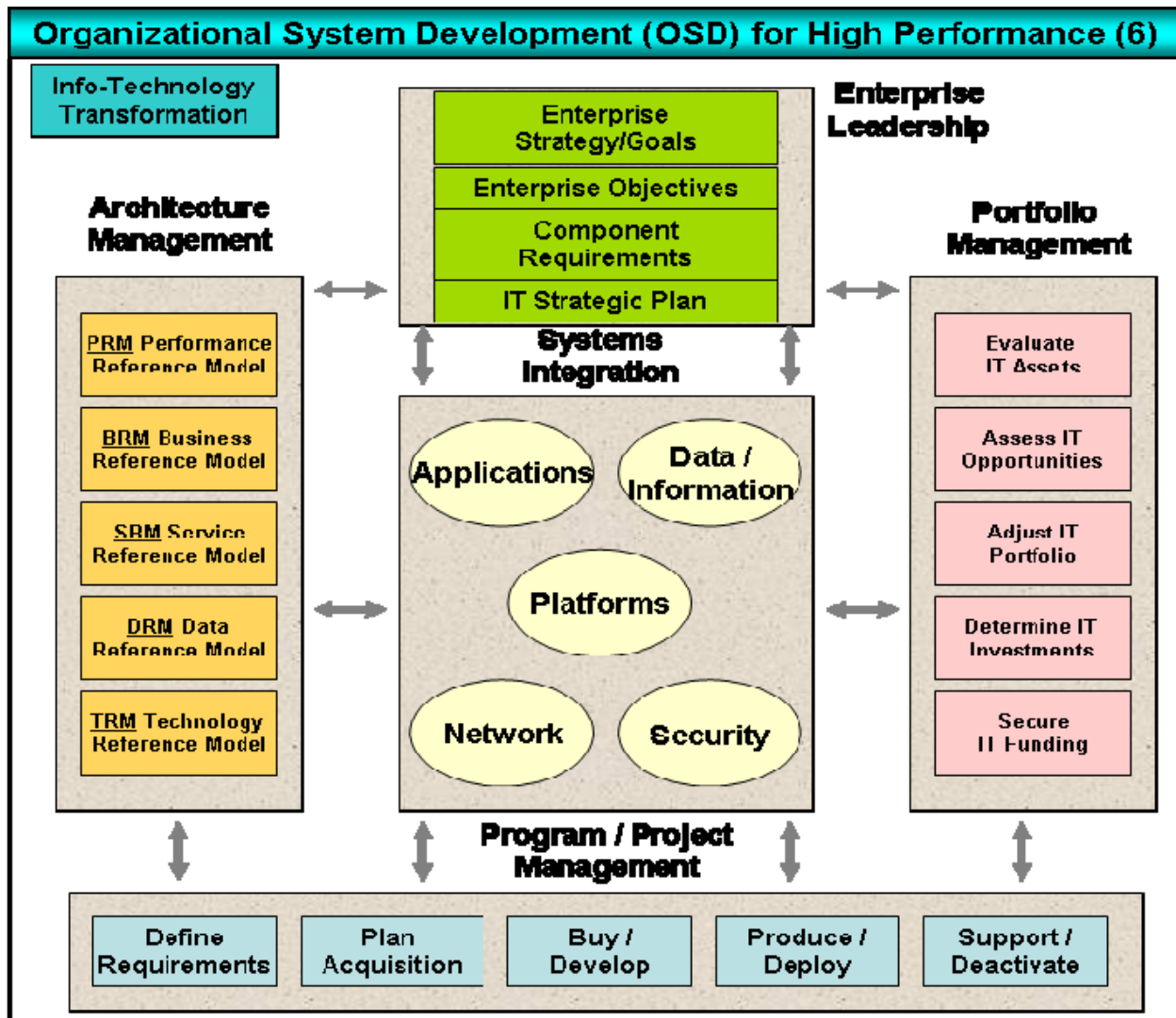


Figure 8-7

state-of-the-art computer communications are necessary for today's complex, network distributed enterprises that strive to support the accomplishment of business goals and objectives.

3. Architecture Management. The enterprise architecture establishes the current status and approved future direction for the IT infrastructure. It does so in a manner that defines technical systems integration and ensures tight linkage among the interdependent IT sub-functions. In the Federal Enterprise Architecture a reference model framework is used that identifies the following five mutually dependent EA components, and directs that agencies and departments ensure their EAs address all five models.
 - a. Performance Reference Model (PRM). Requires the establishment of performance indicators and measures to help track and improve IT performance and improvement.

- b. Business Reference Model (BRM). Requires the preparation of an inventory of business processes, their linkage to appropriate EA layers, and their use in influencing IT investment decisions.
 - c. Service Reference Model (SRM). Describes the types of IT supported services provided to the business, and is linked to other layers of the EA.
 - d. Data Reference Model (DRM). Describes enterprise data at the data entity level, and their linkage to business processes and appropriate EA layers.
 - e. Technical Reference Model (TRM). The inventory of deployed and approved technologies linked to other layers of the EA.
4. Portfolio Management. The process by which business information requirements and desired capabilities are met with on-going and proposed IT investments. A generic five stage management process is applicable: (1) evaluate current IT assets in the deployed portfolio, (2) assess It opportunities on the horizon, (3) plan to adjust the future portfolio, (4) determine the cost of panned investments, secure and allocate IT funding for programs and projects.
 5. Program/Project Management. A systems engineering, acquisition management methodology for bringing new IT capabilities into the deployed infrastructure in terms of the evolving EA, and for using approved program/project management techniques to inculcate disciple and cost efficiency. The phase of project management activity include: (1) defining requirements, (2) planning the acquisition, (3) conducting a buy or develop process, (4) producing and deploying the new capability, and (5) supporting and the eventually deactivating the system function and/or features.

[Author's Note: The ability of the IT leaders and/or the CIO to work cooperatively to ensure all aspects of a continuous IT improvement program, or of a major enterprise approved transformation, are executed efficiently and effectively is a determining factor on whether the enterprise business functions continue to perform as desired—poor performance almost certainly leads to decreasing productivity, customer satisfaction, and business revenue.]

Managing Interdependence (IT). The authors of "IT in the 1990s: Managing Organizational Interdependence" (Rockart & Short, 1989), argue that information technology (IT) is a partial solution to one of management's oldest problems: how to effectively manage organizational interdependence. By effective "management of interdependence," they mean causing the organization "to achieve concurrence of effort along multiple dimensions" (p. 8). They explain that organizational inter-dependence requires managers to focus on managing complexity, make greater use of teams, consider changing measurement processes, consider changing planning processes, and take action on establishing improved information technology infrastructures. They also note that as organizations continue to streamline their operations and integrate processes for greater efficiency, information technology can provide a vastly improved communications capability by wiring individuals and organizational units together.

The importance of this perspective is that it describes the increasingly complex, but manageable task of collecting, analyzing, and acting on selected management information. An efficiently constructed information distribution system capable of providing every manager, team leader, and specialist with information that is accurate, timely, and in the right amount is an important adjunct for organizational learning and development.

[Author's Note: In terms of the OSD framework, an information distribution system is seen as part of the operations subsystem. As such, it can be a catalyst for improving communication among individuals and teams and be an approach for the efficient exchange of technical information relevant to the organization's core processes.

Knowledge Management Technologies. IBM has been one of the leaders in the development of the field of Knowledge Management (KM). Their extensive research into the practices of tacit and explicit knowledge creation and transfer and into all aspects of IT services from information taxonomies and databases through tools for communication and collaboration to portals and networks has enabled their continued leadership in the IT industry. A study they conducted in the late 1990s illustrates their understanding of how IT innovation is an essential component when establishing corporate Knowledge Management systems. They identified twenty-two functional requirements desired by KM system users:

1. Agents/Push. The transparent delivery of relevant content. Agents are usually initiated by the information server rather than the information user. E-mail is a form of push technology.
2. Categorization. The classifying, indexing, and grouping of content according to pre-determined taxonomy hierarchies. For example, tagging news feeds for distribution throughout an organization.
3. Clustering. The process of grouping collections of documents dynamically based on common themes or patterns. Clustering can extract dominant themes within documents and then group the documents according to those themes.
4. Collaboration. Transferring or sharing of "know-how" from e-mails, documents, drawings, data tables, multi-media between individuals, groups, or the enterprise independent of physical locations, and in both synchronous and asynchronous modes.
5. Communities. Enabling a self-organized, deliberate collaboration of individuals who share common practices, interests or goals and want to advance their knowledge. This can include communities of practice, interest, discussion groups, bulletin boards, etc.
6. Conferencing/White-boarding. Enabling the synchronous sharing of documents, text, video, with a group/team. Conferencing can support both scheduled and spontaneous sharing of information.

7. Data Mining. Uses algorithms (usually proprietary) to analyze the aggregation of data and meta data across structured and unstructured repositories (often large volumes of data) to uncover relationships, patterns or visualizations.
8. Data Warehouse. A separate, centralized, or integrated repository for all or significant parts of the data that a enterprise's various business systems collect optimized for data retrieval and storage.
9. Distance Learning. Enabling learning technologies via various media and representations to allow for the absorption of tacit and explicit knowledge.
10. Document Management. A family of applications which facilitate the management of compound documents, including storage/archiving, cataloging/indexing, search and retrieval, analysis, workflow, routing, aggregation, diffusion, and distribution.
11. Expertise/Skills Location. Enabling people/users to find the leading sources of expertise available to the organization – both internal and external–on a given subject. These systems can include expert/skills inventory databases, yellow pages or directories, project participation, or monitoring a person's activity.
12. Linguistic/Semantic Analysis. The break down of existing full text indexed repositories on the basis of word meanings and associations at the document, repository, and global levels.
13. Messaging. Enabling users to engage each other for synchronous dialog, file transfer or other forms of exchange in real time.
14. Meta-Data Management. The management of "data about data." The process of capturing data like text, author, location, and date of creation to add context to the information being described.
15. Natural Language Inquiries. Enables users to ask questions to a system the way they think of issues.
16. Personalization. The subscription to information by a user based on their preferences and interests.
17. Search. Query based approach to discovering content across multiple sources. Search has evolved to include advancements in linguistic analysis, natural language queries, user profiles, contexts, etc.
18. Taxonomy/Mapping. The process of guiding, inventorying, and categorizing or associating complex documents (both internal and external), information or knowledge sources through hierarchies of words, meanings and associations.

19. User Profiling. The chronicle, collection and administration of information about a user, such as a job title, department, skills, expertise, authorship, access rights, or role in process. This information is used to feed agent technology, document management systems, etc.
20. User Interface. The access capability, entry point and presentation of the corporate memory. Typically, access is offered through portals, intranets, extranets, etc.
21. Visualization. The graphical representation of massive volumes of information that link the interrelationships of content.
22. Workflow Management. Enables the track/management of task-based work processes through an online, virtual community.

[Author's Note: Knowledge management technology has become a staple in today's organizations, and all of the IT innovative tools and technologies listed herein are experiencing rapid implementation and improvement. The challenge, as always in the IT function, is to ensure IT strategies, architectures, and investments fully support business processes and enterprise objectives. Learnership practitioners will need to develop the IT knowledge and skills required for management consulting at the executive, process, and job/performer levels of enterprise responsibility.]

Fast Business. In his book Business at the Speed of Thought (1999), Bill Gates says that "business is going to change more in the next ten years than it has in the last fifty...These changes will occur because of a disarmingly simple idea: the flow of digital information." (p.xiii). He makes the point that: "The Internet creates a new universal space for information sharing, collaboration, and commerce. It provides a new medium that takes the immediacy and spontaneity of technologies such as the TV and the phone and combines them with the depth and breadth inherent in paper communications."

Gates continues to say "I've written this book for CEOs, other organizational leaders, and managers at all levels. I describe how a digital nervous system can transform businesses and make public entities more responsive by energizing the three major elements of any business: customer/partner relationships, employees and process. I've organized this book around the three functions that embody these three elements: *commerce*, *knowledge management*, and *business operations*." To make digital information flow an intrinsic part of your company, here are twelve key steps: (pp.xix-xxi)

For Knowledge Work:

1. Insist that communication flow through the organization over email so that you can act on news with reflex-like speed.
2. Study sales data online to find patterns and share insights easily. Understand overall trends and personalize service for individual customers.

3. Use PCs for business analysis, and shift knowledge workers into high-level thinking work about products, services, and profitability.
4. Use digital tools to create cross-department virtual teams that can share knowledge and build on each other's ideas in real time, world-wide. Use digital systems to capture corporate history for use by anyone.
5. Convert every paper process to a digital process, eliminating administrative bottlenecks and freeing knowledge workers for more important tasks.

For Business Operations.

6. Use digital tools to eliminate single-task jobs or change them into value-added jobs that use the skills of a knowledge worker.
7. Create a digital feedback loop to improve the efficiency of physical processes and improve the quality of the products and services created. Every employee should be able to easily track all the key metrics.
8. Use digital system to route customer complaints immediately to the people who can improve a product or service.
9. Use digital communications to redefine the nature of your business. Become larger and more substantial or smaller and more intimate as the customer situation warrants.

For Commerce.

10. Trade information for time. Decrease cycle time by using digital transactions with all suppliers and partners, and transform every business process into just-in-time delivery.
11. Use digital delivery of sales and service to eliminate the middleman from customer transactions. If you're a middleman, use digital tools to add value to transactions.
12. Use digital tools to help customers solve problems for themselves, and reserve personal contact to respond to complex, high-value customer needs.

According to Gates, "The new horizontally integrated compute industry provides the best business and technical model for the future. The inexorable competition in each layer of the industry—chips, systems, software, solutions, and service—drives each area ahead independently of any other. This high volume model attracts more and more software developers who create packaged software that reduces the cost of business." (pp.436-437)

Organization Performance

Statistical Quality Control: A phenomenon will be said to be controlled when, through the use of past experience, we can predict, at least within limits, how the phenomenon may be expected to vary in the future.

W.A. Shewhart

Overview: Organization Performance Management

Performance Management. Performance management is an aspect of organization improvement that is essential to quality management and customer satisfaction. In Improving Government Performance (Wholey & Newcomer, 1989), the authors focus on the performance management of government organizations. They state that "Strengthening government performance—improving the productivity, quality, timeliness, responsiveness, and effectiveness of public agencies and programs—is important to us all, as beneficiaries of public services and as taxpayers" (p.1). They suggest that in government there is greater difficulty in determining what constitutes high performance, not so much because the desires and needs of customers are not understood, but because the political and bureaucratic environment makes agreement over goals, priorities, budget, and performance measures difficult to achieve. They point out that customers are not only those who receive agency or program services, but other influential stakeholders and constituents that help determine policy and budget. The need for compromise among all interests tends to cause programs to have unclear goals, thereby making the collection and assessment of useful performance data a challenge. This being the case, they contend that effective and efficient agency and program management is more difficult to achieve than for the private sector. Notwithstanding this view, public sector organizations are accountable for their performance and must strive to align the interests of all those in their *customer set* who receive or are concerned with service delivery.

The authors state that "Public policy makers and managers face four leadership challenges: (1) setting organizational goals; (2) ensuring that priorities among goals are clearly understood and agreed on; (3) providing continuous feedback on organizational performance in terms of those goals; and (4) stimulating improved organizational performance" (p.2). It should be noted that these challenges parallel the knowledge, quality, and learning themes of this book. Of particular interest, is the need to develop measurements by which organizational performance and results may be assessed and corrective action taken. To be acceptable, the performance indicators must be quantitative and qualitative measures that represent the goals and interests of all parties. In this regard, the notion of *acceptability* is an essential aspect of customer satisfaction. Acceptability may be defined as: "A term used to reflect approval by a consumer or a client of a product, service, or program. The term includes the notion of consumer or client satisfaction with services plus other relevant measures, such as clients' ratings of how well the program met their service goals, feedback about the process of service, records of complaints, and commendations" (Love, 1991). For public sector organizations, the concerns and objectives of all policy stakeholders and constituents also need to be considered.

[Author's Note: The above line of thinking is significant in that it elaborates on the performance measurement imperative to collect and manage with appropriate data and information, and

emphasizes the product and service acceptability aspects of customer satisfaction. It also reinforces a quality management principle that being customer-focused is being quality-focused. From an ontological perspective, achieving customer satisfaction is the corollary to reaping the consequences of purposeful organizational order, knowledge, and action.]

Organizational White Space (Performance Measures). In their book Improving Performance: How to Manage the White Space on the Organization Chart (1990), Geary Rummler and Alan Brache advocate a high-level systems (horizontal) view of the organization in which three important process-based features can be observed: (1) the relationship between flow of work, the product, and the ultimate customer, (2) how work gets done across functional boundaries, and (3) the internal customer relationships that need to be managed. Their conceptualization of the enterprise or organization is in terms of three levels of end-to-end (input to output) performance:

1. Organization Level. At this level the organization's relationship with its market can be seen. Executive level leaders focus on *organizational goals, design, and management*. This level is where the organization measures its *performance effectiveness* within its marketplace.
2. Process Level. At this level the organization performance at the cross-functional work process level is managed by mid-level managers. Their responsibility is to focus on *process goals, design, and management*, and their concern is measuring and managing the *performance efficiency* of their processes.
3. Job/Performer Level. At this level of the organization the emphasis is on *job goals, design, and management*. The concern here is that each contributor operates with *performance competence*, accomplishes his or her tasks, and is recognized in doing so. (pp.15-19)

In Chapter 7, Linking Performance to Strategy, the authors say that: "Before performance at any level can be managed, the expectations for that performance need to be clearly established and communicated." (p.79) This is accomplished through strategic planning that includes (1) defining the desired end states, and (2) the preparation of a strategy implementation/monitoring plan. Subsequently, the diligent execution of the implementation/execution plan consists of multiple level performance reviews and the taking of corrective action at the organizational, process, or job/performer level. This concept has been adapted as shown in Figure 8-8. Illustrated are the three levels of organizational management slightly modified along a continuum beginning with *objectives* and moving through *improvement indicators* and *measures*, to *performance targets*. Organizational high performance occurs when the performance across all three levels is optimized, and the organization is recognized as being effective, efficient, and competent in achieving desired market results and customer satisfaction.

The Rummler-Brache performance improvement methodology is uniquely designed to integrate the three levels of goals/objectives, workflow analysis, improvement actions; and to follow-up with appropriate metrics to evaluate performance improvement. In Figure 8-8, continuous improvement is envisioned through the horizontal and vertical interdependencies among the organizational, functional/process, and job/performer levels of responsibility and accountability.

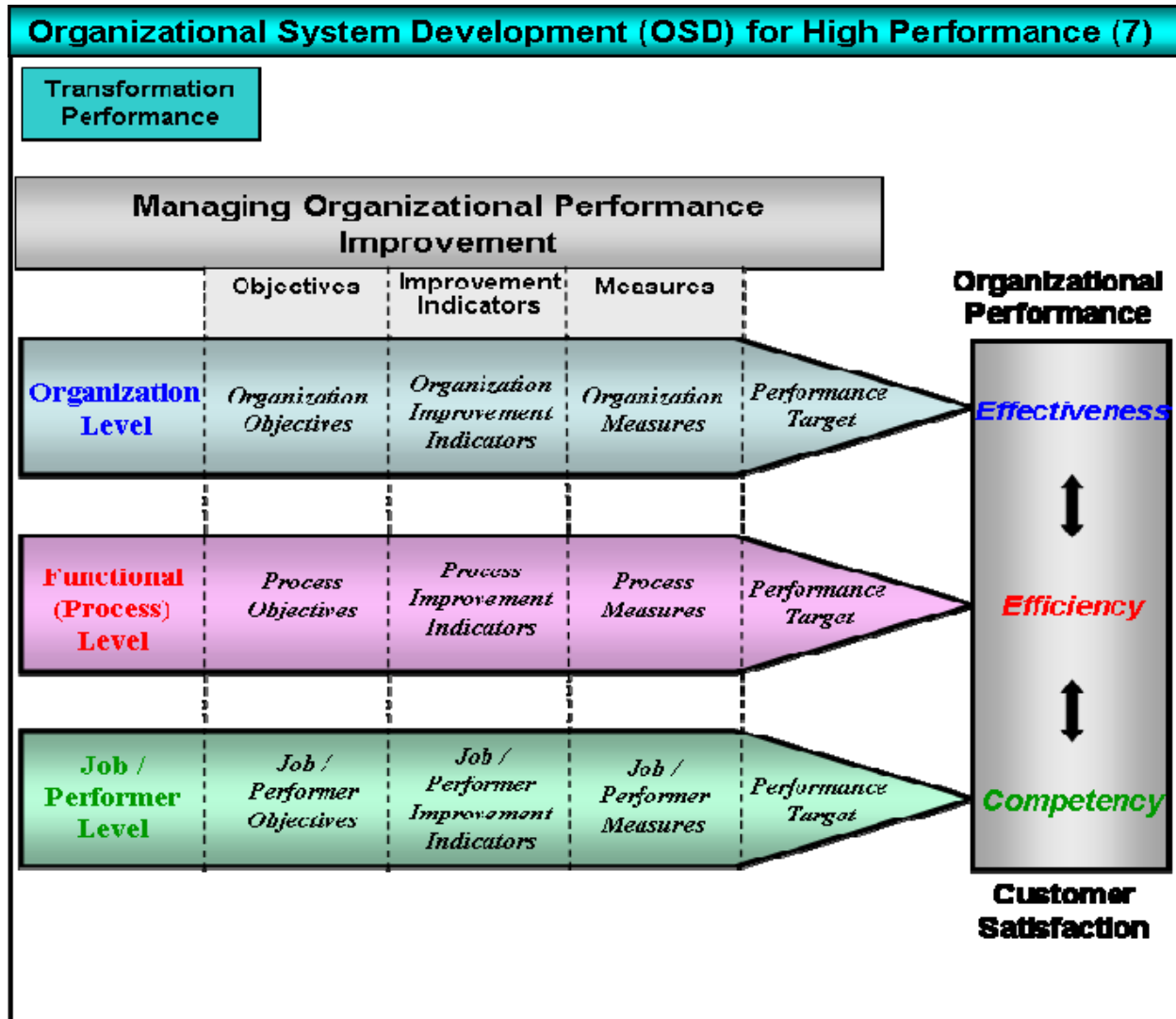


Figure 8-8

Customer Service. In *At America's Service* (Albrecht, 1988), the author offers a compelling view that serving customers more effectively and efficiently is the path to business success (in this context, the path to success for all organizations). He suggests that there is a service quality revolution occurring in American industry that will determine which businesses continue to grow and prosper. Albrecht's basic theme is that there are three major business factors that lead to customer satisfaction when they are well administered. These are:

1. "A Well-Conceived Strategy for Service. The outstanding organizations have discovered, invented, or evolved a unifying idea about what they do . . . [which] directs the attention of the people in the organization toward the real priorities of the customer.
2. Customer-Oriented Front-Line People. By some means, the managers of such organizations have encouraged and helped the people who deliver the service to keep their attention fastened on the needs of the customer.

3. Customer-Friendly Systems. The delivery system that backs up the service people is truly designed for the convenience of the customer rather than the convenience of the organization" (p.32).

Albrecht's view is that the mission of all organizations is to satisfy their customers, and to do so require a focus on improving their respective systems, people, and strategies.

[Author's Note: An observation that may be made is that product and service quality results are determined by the organizations' customers, who typically have ever higher expectations making continuous improvement (through learning) an essential activity just to stay in business. Achieving high quality products and services, therefore, is a goal-inspired journey, rather than an end-state that may be permanently attained.]

Government Customer Services. The Federal government's National Performance Review of 1993 issued a number of reports designed to improve the effectiveness, efficiency, and economy of federal departments and agencies. One such report is entitled "Improving Customer Service" in which the stated objective was to have government focus more directly on the consumer of its services, the citizenry, than on its own internal operations. According to the report, customer and employee inputs should be used to set performance standards and that processes to collect, analyze, and take corrective action need to be established. This effort parallels the significant effort being made by private sector firms and organizations to "get in touch with their customers" as a means of increasing market share and financial performance. An Executive Order was issued that stated the following principles that govern the provision of customer service:

1. Survey customers frequently to find out what quality of services they want
2. Post service standards and results measured against them
3. Benchmark performance against the best in business
4. Provide choices in both source of delivery and means
5. Make information, services, and complaint systems easily accessible
6. Provide redress for poor service
7. Handle inquiries and deliver services with courtesy
8. Provide pleasant surroundings for customers

The intent of the Improving Customer Service initiative was to improve the quality of government product and service delivery, and this was to be done by learning what the customers and clients for these products and services need and want (their expectations). With this knowledge, the basis for improving the organization's strategies and processes was to be established and action taken to benefit the customers.

[Author's Note: An observation is that even the government should place more attention on service to its citizens. Whether that has happened to a large degree over the last decade is left to individual judgment, but this author thinks not.]

Balanced Scorecard. In their book The Balanced Scorecard: Translating Strategy into Action (1996), Robert Kaplan and David Norton present a management system that enables organizations to clarify their visions and strategies and to establish a measurement system to evaluate organizational performance in the pursuit of those objectives. Kaplan and Norton state that: “The balanced scorecard retains traditional financial measures. But financial measures tell the story of past events, and adequate story for industrial age companies for which investments in long-term capabilities and customer relationships were not critical for success. These financial measures are inadequate, however, for guiding and evaluating the journey that information age companies must make to create future value through investment in customers, suppliers, employees, processes, technology, and innovation.”

The balanced scorecard uses a four perspective approach for assessing organizational performance: (1) Learning and Growth, (2) Business Process, (3) Customer, and (4) Financial. In each the objectives, measures, targets, and initiatives are identified and assessed as to their contribution to accomplishment of the organization’s vision and strategy. The four perspectives are defined as:

1. Learning and Growth. This perspective focuses is on the necessity for knowledge workers to be in a continuous learning mode. Learning is more than just training, and includes mentors and tutors, the availability of communications systems and technological tools.
2. Business Process. This perspective refers to internal business processes. Metrics based on this perspective allow the managers to know how well their business is running. Two kinds of processes may be identified: (a) mission-oriented processes, and (b) support processes.
3. Customer. This perspective emphasizes the important of customer satisfaction. Customers should be analyzed in terms of the kinds of customers and the kinds of processes that are used to service them.
4. Financial. This perspective continues the traditional emphasis on revenue and profit, but adds cost-benefit data and risk assessment to the criteria.

[Author’s Note: The balanced scorecard approach has gained enormous popularity in the business community and complements the performance management work of Rummler and Brache. Both methodologies are anchors for learnership practitioners assigned to improve management’s ability to know and understand the progress, or lack of progress, being made by their respective organizations.]

21st Century Measurement. In an APQC White Paper entitled: “Measurement in the 21st Century, (2004)” Lisa Higgins and Becki Hack present a thoroughly research perspective on contemporary activities in corporate performance measurement. They say that: “Successful organizations are marked by good planning, execution, and decision making in terms of corrective action and adjustments to strategic efforts. These actions stem from a strong

measurement system. The key to marketplace longevity and competitiveness is finding the measurement framework that provides a balanced picture of organizational health by designing measures that are important to organizational strategic objects and actionable...” (p.8) Their recommended Performance Measurement Model (PMM) shows that strategy, goals, and objectives can be depicted in three levels of performance: (1) Strategic drives and is evaluated by organizational performance measures, (2) Operational drives and is evaluated by group performance measures, and (3) Tactical drives and is evaluated by individual performance measures. Furthermore, they say that: “Ideally, measures should be reflected in a balanced, cascading scorecard...Organizations can achieve this balance by establishing measures in four quadrants that reflect key objectives:” (p.10)

1. Customers. Measures performance against expectations (e.g., satisfaction, loyalty, retention, acquisition, and profitability)
2. Financial. Measures economic consequences of actions already taken (e.g., income, return on equity, return on investment, growth, and cash flow)
3. Operational. Measures effectiveness, adaptability, and efficiency of internal processes
4. People. Measures employee skills, information exchange, and organization procedure

On the subject of measurement design, the authors state comment that: “APQC’s research shows that organizations must begin by selecting measures that align with strategic objectives, demonstrate results, and focus on outcomes. They must also produce measures that (1) are meaningful, (2) respond to multiple organization priorities, (3) encourage operational improvements, (4) provide a complete, accurate, and believable picture of performance, and (5) blend leading and lagging indicators.” (p.10) The recommended steps for setting up an effective measurement system are:

- Step 1 Establish clarity around strategy and goals at the top
- Step 2 Determine critical success factors
- Step 3 Develop and assess effective measures
- Step 4 Establish goals and baseline performance
- Step 5 Assess performance

A cautionary note is provided that says: “Do not be tempted to think of measurement as an off-the-shelf solution. It first entails careful thought and planning concerning the organization’s core strategies and the vital few measures that will adequately gauge performance and depict a comprehensive picture of organizational health. Then, the organization must implement and constantly monitor a performance measurement system using traditional change and management principles.” (p.42)

Organizational Learning and Knowledge Management

There's a way to do it better...find it.

Thomas A. Edison

Transformation Methodologies. There are many contemporary methodologies that may be pursued in an attempt to achieve significant change in organizational performance. Figure 8-9 illustrates a typical organization or business enterprise striving to stay competitive in its marketplace by working with its partners to overcome risks, achieve its mission, and satisfy its customers. To make progress, its *organizational direction* should be supported through *organizational positioning* in which business intelligence about the *competition* leads to improvement in its own operational *capabilities*. To do this requires a comprehensive *transformation strategy* that may include integrative improvements in its organization structure, processes, culture, workforce, and use of information technology. And, if the organization has been in business for more than just a few years, a number of improvement strategies may already be underway (e.g., supply chain management, process reengineering, e-business, etc.). The addition of organizational learning and knowledge management practices and technologies will need to be carefully architected to reduce unnecessary disruption while at the same time bringing the proven benefits of these initiatives to the organization's workforce and leaders. In fact, the principles, practices, and technologies of organizational learning and knowledge management do not compete with other improvement efforts, they actually act as catalysts that enrich operational intelligence and promise even greater positive impact and results. The figure also illustrates that the five learnership practitioner competencies (system thinking, pattern recognition, situational learning, knowledge management, and adaptive leadership) already discussed in earlier chapters have a role to play in refining organizational organization direction and positioning, and in strategic planning and strategy implementation.

Learning Organizations. An important perspective on maximizing organizational performance is found in The Fifth Discipline: The Art and Practice of the Learning Organization (Senge, 1990). The author probes below the surface of most other contemporary prescriptions for improving organization performance to find important common ground—the ability of the organization to learn. According to Senge, there are five disciplines that require study and skill development if real growth and development are to occur. These are defined below.

Personal Mastery. "Personal mastery is the discipline of continually clarifying and deepening our own personal vision, of focusing our energies, of developing patience, and of seeing reality objectively...the learning organization's spiritual foundation" (p.7). Senge indicates that an organization can only learn as well as its individual members are able to learn. The implication is that the LISA Model's Personal System Development (PSD) feature is relevant in its focus on attaining self-fulfillment through individual quality learning and development. A mutual commitment between the organization and its members to heighten one another's learning is seen as a major first step in establishing a learning organization, and is an essential element in the OSD social subsystem.

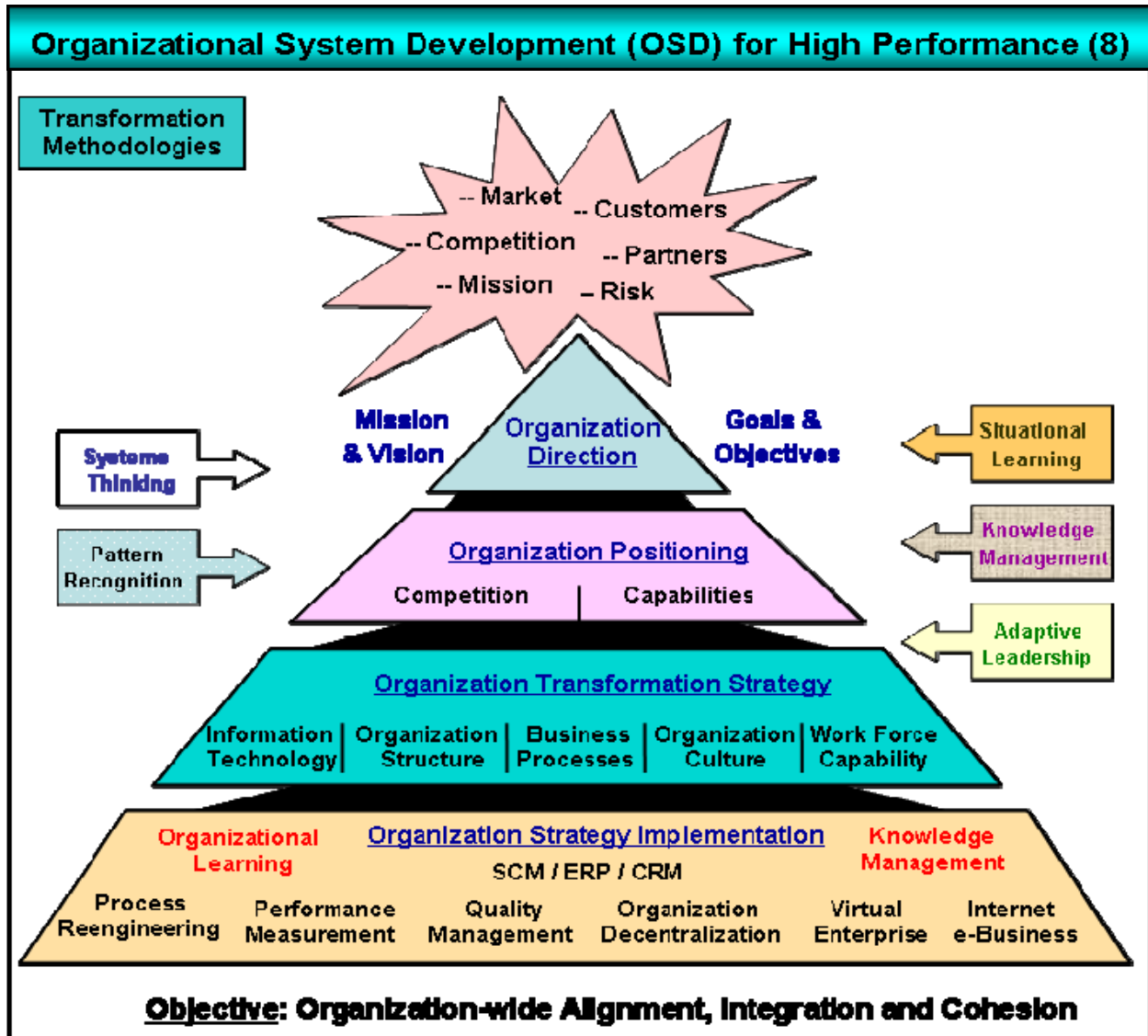


Figure 8-9

Mental Models. "Mental models are deeply ingrained assumptions, generalizations, or even pictures and images that influence how we understand the world and how we take action" (p.8). Senge suggests that an individual's or organization's perspective on a situation may limit organizational learning, adaptation, and growth. This may be overcome by encouraging "learningful" conversations in which people balance inquiry (openness to others' views) and advocacy (willingness to expose one's own thinking). An appropriate observation may be that individuals who have optimized their personal development (reference PSD) have acquired the confidence and ability to engage in open, effective communication. The result should be better understanding, learning, and development which are important aspects of all OSD subsystems.

Team Learning. Senge says that "Team learning is vital because teams, not individuals, are the fundamental learning unit in modern organizations...unless teams can learn, the organization cannot learn" (p.10). Team learning occurs when team members are able to suspend assumptions

and enter into *dialogue*, wherein thinking together causes free-flowing meaning to evolve from clear and authentic communication. The emphasis on dialogue is of particular importance in that it distinguishes the desired style of balanced, open, exploratory type of communication from the more common *discussion* in which competing viewpoints are often the at issue, and hidden agendas are often operating just below the surface. The conditions necessary to conduct dialogue include: (a) the participants' ability to suspend their respective "assumptions" so as to keep the exploration of new and related information and ideas flowing, (b) the participants' regard for one another as colleagues worthy of being listened to and learning from, and (c) the participants' willingness to use a "process facilitator" to assure ownership of the process and the outcomes. Senge offers that *dialogues diverge* and do not seek agreement, but attempt to achieve a richer grasp of complex issues. On the other hand, *discussions converge* on a conclusion or course of action. Used appropriately, dialogue and discussion improve issue understanding and encourage effective problem-solving and decision making. A reasonable conclusion is that fully developed and mature team members with a capacity to enter into dialogue provide a solid foundation for effective OSD social subsystem operation.

Shared Vision. A shared vision is important in that it is able to "bind people together around a common identity and sense of destiny...The practice involves the skills for unearthing shared 'pictures of the future' that foster genuine commitment and enrollment rather than compliance" (p.9). Whereas individuals pursue their visions of personal self-fulfillment, organizations need to create a common purpose that compels optimized results from the interplay among their respective strategic, operational, and performance subsystems. In the context of the LISA Model, customer satisfaction serves as the common purpose and is sought after as the goal with highest value or quality.

Systems Thinking. Systems thinking is the most important discipline (The Fifth Discipline) in that it provides the thinking framework for the other disciplines. Specifically, "Systems thinking is a conceptual framework, a body of knowledge and tools that has been developed over the past fifty years, to make the full patterns clearer, and to help us see how to change them effectively" (p.7). Senge notes that the overwhelming complexity, greater interdependency, and accelerated change of modern society makes it essential that we learn to see things in their wholeness. His view is that systems thinking allows us to understand, learn, and act more effectively: "...systems thinking is the cornerstone of how learning organizations think about the world" (p.69).

Senge's thesis is particularly significant when viewed within a quality and knowledge management context. Some examples include quality management's emphasis on: (1) customer satisfaction—which is accomplished through learning what the customer needs and how quality is determined before making product and service improvements, (2) quality planning—which requires learning external environmental threats/opportunities and organizational internal strengths/weaknesses which may be used for strategy development, (3) quality improvement of processes—which may be accomplished by learning how current systems perform and making selected improvements, and (4) human resource participation and development—which requires learning the degree to which employee knowledge, skills, and abilities are sufficient for task accomplishment and developing appropriate education and training.

[Author's Note: It may be said with confidence that for organizations, just as for individuals, quality is a goal sought but never fully achieved, through a process of continuous learning. While the organization seeks learning to better satisfy its customers, its employees seek learning to achieve self-fulfillment. A strong case may be made that the goals and improvement processes for both an organization and its employees should be regarded as being mutually supportive.]

Learning Organization Principles. In Ten Steps to a Learning Organization (Kline & Saunders, 1993), the authors introduce the idea of "integrated learning" in which "The capacity for shared vision can be created as people learn to relate to each other in new ways that are both more intelligent and more humane" (p.14). They argue that it is possible to structure organizational workplaces to be more compatible with member needs. They also suggest that top management can model and guide changes in attitude and behavior, thereby building a foundation for increased individual and organizational learning—and improved personal and organizational performance. Their sixteen principles that promote learning in organizations (pp.16-17) are:

1. Prime the minds of individuals at every level to be self-directed.
2. View mistakes as stepping stones to continuous learning, and essential to further business growth.
3. There must be willingness to rework organizational systems and structures of all types.
4. Because learning is an emotional process, the corporate culture should be a supportive place to be.
5. Celebrate the learning process for its own sake, not just its end product.
6. Celebrate all learners equally.
7. Accomplish as much transfer of knowledge and power from person to person as possible.
8. Encourage and teach learners to structure their own learning, rather than structuring for them.
9. Teach the process of self-evaluation.
10. Recognize and accept as a goal the complete liberation of all human intelligence everywhere.
11. Recognize that different learning preferences are alternate tools for approaching and accomplishing learning.
12. Encourage people to discover their own learning and thinking styles and make them accessible to others.

13. Cultivate each employee's abilities in all fields of knowledge, and spread the idea that nothing is forever inaccessible to people.
14. Recognize that in order to learn something so it is easy for one to use it, it must be logical, moral, and fun.
15. Ideas can be developed best through dialogue and discussion.
16. Everything is subject to re-examination and investigation.

The authors state that: "...tensions between management and labor, and between the public and private sectors will give way to a sense of harmony and community that satisfies the deepest needs of the whole commonwealth, and indeed for the first time fully defines the true meaning of that term" (p.235)

[Author's Note: This perspective is notable in terms of learnership in that it articulates the need in human systems for meaningful and productive social relationships. When individuals experience shared goals and activities in a mutually supportive social atmosphere, their emotional and cognitive needs are satisfied leading to higher levels of performance. More detailed information on organizational learning and knowledge management may be found in Chapters 4 and 5.]

Going Virtual. Most of today's organizations are being swept along by the pace and complexity of the ever-changing marketplace. As we have noted here, the world is going flat and virtual and customers are demonstrating their bias toward products and services that are new, innovative, and tailored to their own needs. Authors Raymond Grenier and George Metes in Going Virtual: Moving Your Organization into the 21st Century (1995) provide some viewpoints and suggestions that are particularly useful in this chapter on Organizational Systems Development (OSD). A new set of mental models define the virtual operations culture. Here are just a few:

1. Beliefs about Working with Networked Information. These include (1) work in the network, not the office, (2) use electronic information versus paper documents, (3) seek needed information and knowledge, don't wait for it to come to you, (4) when in doubt, share—there is more power there, (5) start with the information you can get, don't wait for all of it.
2. Beliefs about Work Processes. These include (1) work in parallel, not serial mode whenever possible, and (2) plan and think about competencies, not geographies or organizations.
3. Beliefs about Teaming. These include (1) trust other stakeholders, they want the same results, (2) you are finished only when everyone else is done, and (3) recognition and rewards are based on the value the team creates, not the activity level of any individual in the team.

4. Beliefs about Communication. These include (1) this meeting's not over, its just gone to another medium, and (2) out of sight, but never out of mind.
5. Beliefs about Learning. These include (1) learn from everyone, everywhere, (2) failure is learning, and (3) learning is systemic, not episodic.

The authors comment that the term “knowledge worker” has now replaced “information worker,” and that the new title recognizes “knowledge” as the coin of the realm. Information is collaboratively built into knowledge which in turn is the basis for innovation in products and services. They say that: “The principal responsibility of the knowledge worker is to commit his or her knowledge, skills, experience and energy to create organizational value. In the virtual environment this means using the information infrastructure to support the development of knowledge as value.” (p.87) This involves:

1. Understanding the organization's commitment to virtual operations
2. Understanding the virtual team's goals
3. Developing specialized and virtual operations competencies
4. Using the network to access information and knowledge in the network, and to integrate that knowledge with other knowledge/competencies in the team
5. Representing or embodying that knowledge in a product or service” (pp.88-89)

[Author's Note: Learnership practitioners will be responsible for understanding and consulting in all aspects of organizational systems development addressed in this chapter. Just as in the previous chapter, they will use the five learnership competencies as catalysts in framing their issues/problems and discovering the best solutions for the situation and context that presents itself. Additionally, they will need to expand their use of this chapter's knowledge and methodologies as they pursue their work in selected areas of personal and community systems development (Chapters 7 and 9).]

Conclusion

The first step in answering any hard business question is to take an objective, facts-based approach. This principle is easier said than act on.

Bill Gates

Application of Learnership Reasoning Competencies. A fundamental goal of learnership is to enable most readers of the book to gain a fuller understanding of how their personal lives and careers are progressing in terms of the larger social systems of which they are a part. This book provides a beginning baseline for this assessment by presenting a philosophical viewpoint, an architectural framework, selected initial content, and a methodology for immersing the reader

horizontally into numerous knowledge disciplines, while vertically driving that same reader into greater subject matter depth in topics they never knew they wanted to know more about. The long-term plan is for those individuals who desire to rapidly develop their skills in this arena—and to begin to train and consult with others—to become accomplished learnership practitioners. A little theory can go a long way once we start to appreciate the benefits of becoming holistic thinkers, lifelong learners, and adaptive leaders.

This section is presented at the end of each chapter on social system development (personal, organizational, community, and societal). A little effort is now required from readers desiring to exercise their evolving understanding of learnership. Your task: using Table 8-10 below and a separate piece of paper, write down some examples of how the five learnership competencies influence, drive, support, or otherwise have a powerful effect on the organizational social system discussed in this chapter. Save your work for later reference and use in your Learnership Journal.

Reasoning Competency	Organizational Social System
Systems Thinking	Impact on your organization?
Pattern Recognition	Impact on your organization?
Situational Learning	Impact on your organization?
Knowledge Management	Impact on your organization?
Adaptive Leadership	Impact on your organization?

Figure 8-10

Personal Reflection. This topic appears at the end of each chapter and is meant to serve two purposes: (1) be a reader’s guide to main points and “takeaways,” and (2) to encourage everyone to take a moment to engage their mental cognition and intuition on what the chapter means to them—especially at this time in their lives. Questions for chapter reflection follow immediately below; and for those readers inclined to maintain a self-assessment, your thoughts may be recorded in your Learnership Journal for Life and Career Reflection and Renewal which is located in the epilogue.

Questions for Discussion:

1. Can you identify three to four characteristics of an *Intelligent Organization*?
2. What is the concept of *organizational white space*? Can you give a couple of examples of where organization White Space may be a problem?
3. Knowledge management provides a number of *practices and technologies* for organizational use. Can you name three of each?
4. The balanced scorecard is used to measure organizational level performance. Can you explain the four major elements that are included?

5. Can you list two to three major learning points from this chapter that you want to keep in mind to improve your ability to manage your life and career?
6. Can you identify two to three topics, models, or perspectives in this chapter you would like to learn more about?
7. Should you be making an entry into your learnership journal at this time?

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