BUS4013: Organization Structure, Learning and Performance
Background Paper

Everyone, at one time or another, has participated in a variety of types of organizations—churches, schools, government agencies, the armed forces, corporations, hospitals, volunteer organizations, etc. Organizations impact our lives and members of the same organization are affected differently. As Margaret Wheatley (1996) states, "Organizations are living systems. They, too, are intelligent, creative, adaptive, self-organizing, and meaning-seeking."

This course is about organizational structure and its relationship to learning and performance. Organizations have a structure, that is, an established set of relationships with ordered and regularly occurring activities. Therefore, performance and structure are inextricably linked. The desire to improve performance is the underlying reason for the inclusion of this course in the Capella undergraduate business curriculum.

Perhaps one may say that organizational structure drives performance; it certainly facilitates performance. Another may say that organizational learning drives performance; it certainly leads to adaptation and growth. And adaptation is necessary for survival. Its opposite is extinction. In other words, this course is an overview of organizations and their design toward fostering learning, which in turn, yields high performance.

Historical Perspective of the Study of Organizational Structure

Classical

We may be able to track the study of how organizations work and how they are structured and managed into ancient times. We can cite Biblical references as well as those from Socrates and Plato. However, most analysts would state that the beginnings of the factory system in the 18th century signified the beginning of the study. Members of the first school of organizational study were called the classicists. They built the foundation for the study of work in organizations, and their work remains highly influential today. Max Weber, Henri Fayol, Adam Smith, Frederick Taylor, and others represent the thinking of the classical period. The fundamental tenets of classicism, according to Jay Shafritz and Steven Ott (1978), follow:

- Organizations exist to accomplish production-related and economic goals.
- There is one best way to organize for production, and that way can be found through systematic scientific inquiry.
- Production is maximized through specialization and division of labor.
- People and organizations act in accordance with rational economic principles.

Modern

When we speak of the structure of an organization, we are actually referring to the stable relationships among positions and groups of positions represented by the organization chart. Structure is concerned with vertical differentiations, or hierarchical levels of organizational authority and coordination, and horizontal differentiations between organizational units, e.g., between product and service lines, geographic areas, process, and others. Classical organizational thought evolved into modern structuralism. The focus remained on the structure or design of organizations. Structuralism was influenced by both the classicists and the human relations theorists. Bolman and Deal (1984) identify the basic tenets of the modern structuralists as:

- Organizations are rational institutions whose primary purpose is to accomplish established objectives; rational organizational behavior is achieved best through systems of defined rules and formal authority. Organizational control and coordination are key for maintaining organizational rationality.
- There is a best structure for any organization—or at least a most appropriate structure—in light of its given objectives, the environmental conditions surrounding it, . . . and the technology of the production processes.
- Specialization and the division of labor increase the quality and quantity of production.
- Most problems in an organization result from structural flaws and can be solved by changing the organization.

Some of modern structuralists include Tom Burns and G. M. Stalker from the Tavistock Institute, the school famous for socio-technical organizational theory; and Paul R. Lawrence; Arthur Walker; Jay W. Lorsch; Stanley Davis; Henry Mintzberg; and others. Individuals associated with this era were expanding attacks against bureaucratic organizational structure and predicted its extinction. However, it is not yet apparent today that democratic networks have replaced it. Bureaucracy is alive and well, continually maintaining its efficiency, equity, and representativeness.

Contingency and Systems Theory

The idea behind contingency theory is that organizational structure should be regarded as a contingent variable. As such, organizational structure is selected in accordance with its fit in the prevailing environmental context. In other words, for an organization to be effective there must be an appropriate fit between structure and context. Woodward (1965) linked technology, structure, and performance. She asserted that a given technology demands a particular structure and firms that obey this technological imperative reap the rewards in terms of organizational efficiency and business success. Empirical research merely states there is a correlation between structure and performance; appropriate structure does not necessarily give rise to high performance.

The mid-1960s was ripe for systems thinking theory. The systems school represents a paradigm shift. It views the organization as a complex set of dynamically intertwined and interconnected elements, including its inputs, processes, outputs, feedback loops, and the environment in which it operates. A change in any one element causes changes in all of the other elements. The interconnections between organizations and their environments tend to be complex, dynamic, and often unknown. Organizations are adaptive systems that must adjust to changes in their environment if they are to survive. An organization's environment likewise shapes the organization. As such, systems theory is an extension of contingency theory.

It is systems theory that, today, dominates the thinking of organizational structures. Feedback loops have primary importance in carrying the data throughout the system so that operations,

processes, strategies, productivity, and overall organizational effectiveness can be improved. The complete and appropriate use of these feedback loops for improving individual, team, and organizational performance characterizes the learning organization. Adaptation is achieved only by learning. With few exceptions, each organization today is in pursuit of becoming a learning organization. Only in improving its learning capacity can the organization deal with change dynamics; only a learning organization can rapidly transform its new knowledge into new products, new marketing strategies, and new ways of doing business. In other words, the learning inside the organization must be equal to or greater than the change outside the organization or the organization will not survive (Revans, 1983). To obtain and sustain competitive advantage in this environment, organizations have to learn better and faster from their successes and failures. This can only be accomplished where learning is a continuous, strategic process, integrated with and running parallel to work. In addition, a learning organization can be an exciting, enjoyable, and fulfilling place to work. Such an organization can employ top people, bringing even more learning into the company, thereby further increasing its performance as a result of its resiliency and generative capacity. A learning organization is a firm that has the powerful capacity to collect, store, and transfer knowledge and thereby continuously transform itself for success. It creates an environment that releases individuals' creative capacities so people learn as they work.

Chaos and Complexity Theory

Until recently, organizational behavior theory has primarily been founded in 17th-century assumptions of managing by breaking things into parts. Organizational structures served to create boundaries between everything and prescribed who did what. The organization treated people like machines, assigning them specific roles, duties, and responsibilities while ignoring their other abilities, emotions, or beliefs. Managers were to integrate all these separate parts into a smoothly functioning machine, the organization. In turbulent times, such as what we have been facing since the 1990s, no machine can flex and adapt as the environment shifts. Since bureaucracies serve to maintain the status quo, it is imperative that an organizational structure exists that is resilient, adaptive, and healthy as are most healthy organisms.

Margaret Wheatley, Fritjof Capra, Peter Senge and others see organizations as living systems, not machines, with intelligence, creativity, adaptability, self-organization, and meaning seeking. They take the management metaphor, not from machines, but from the ways living systems organize, recognize, and manage themselves. Machines are established to run in certain environments. They have no flexibility or resiliency to deal with extraordinary levels of change. Organizations as living systems have capacity for great flexibility and resiliency, and the ability to adapt, to change, and to grow.

Organizational structures emerge when there is no organization imposed because humans live in a universe that seeks organization. These structures are useful and temporary, emerging and receding as needed as individuals connect with one another. Even simple connections lead to organized patterns of behavior. Life organizes as a network of relationships, emerging from processes that can be comprehended but not controlled. Life seeks to organize so that more life can flourish. While systems provide support and stability, they also provide freedom for individual experimentation. Systems emerge as humans decide how they can live together. From such relationships a new entity arises with new capabilities and increased stability. Life leaps forward when it can share information and learning. The dense webs of systems allow information to travel in all directions, speeding discovery, resiliency, and adaptation. Order arises from chaos; there is no need for order to be imposed through command-and-control mechanisms.

Wheatley and other theorists like her bring about a revolutionary way of thinking about organizations by relating scientific discoveries to organization behavior. She has developed a different understanding of how life organizes itself and applies it to our organizations. Wheatley

embraces a holistic and organic view of the world. Using the scientific breakthroughs in the areas of quantum physics, chemistry, and biology and coupling them with chaos theory and change. She explains that the universe is interconnected and relies on an infinite series of relationships. Disequilibrium and change are requirements for systems to grow and survive in our ever-changing universe. Through chaos new order is born.

The evolution of organizational structure is reflected in many of the paradigm shifts, such as the shift from the parts to the whole (systems thinking); from understanding processes as opposed to structures (process-managed organizations); the universe as a web of relationships which is constantly shifting and growing as opposed to hierarchical, stable relationships; and the realization that one can never know reality absolutely or predict anything, as opposed to the clearly-determined order implied by Newton's laws. Beneath all structures and behaviors resides the real creator—dynamic processes. Structures and behaviors are artifacts; it does little good to rearrange them without reference to the underlying dynamics. Process ignores such efforts; it continues to produce its patterns of behavior, its structures of relationships. Or, it responds to those restructuring efforts in unexpected ways. There is no way to influence a process except to dive into its dynamics, those forces that give life and propel it to its present forms. Confusion is part of a much deeper process of organization. It is in this confusion that individuals move into a place of not knowing, and they stay there for a while. What happens then is that the process of self-organization kicks in. Chaos is a critical part of the process by which living systems constantly recreate themselves in their environment (Wheatley, 1996). Chaos and self-organization are the essence of adaptability.

We cannot look at something like self-organization or complex adaptive systems in science, such as plants, molecules, chemicals, without realizing that this is a kind of democratic process. Everyone is involved locally and out of that comes a more global system. Because life is a creation of new systems through relationships and inclusion, participation is not a choice. Sustainable growth, sustainable productivity, and sustainable morale come through participation demanded by democratic leadership. Human beings cannot be totally managed; they want to participate in the creation of it themselves. Life needs to create and participate in the creation of itself.

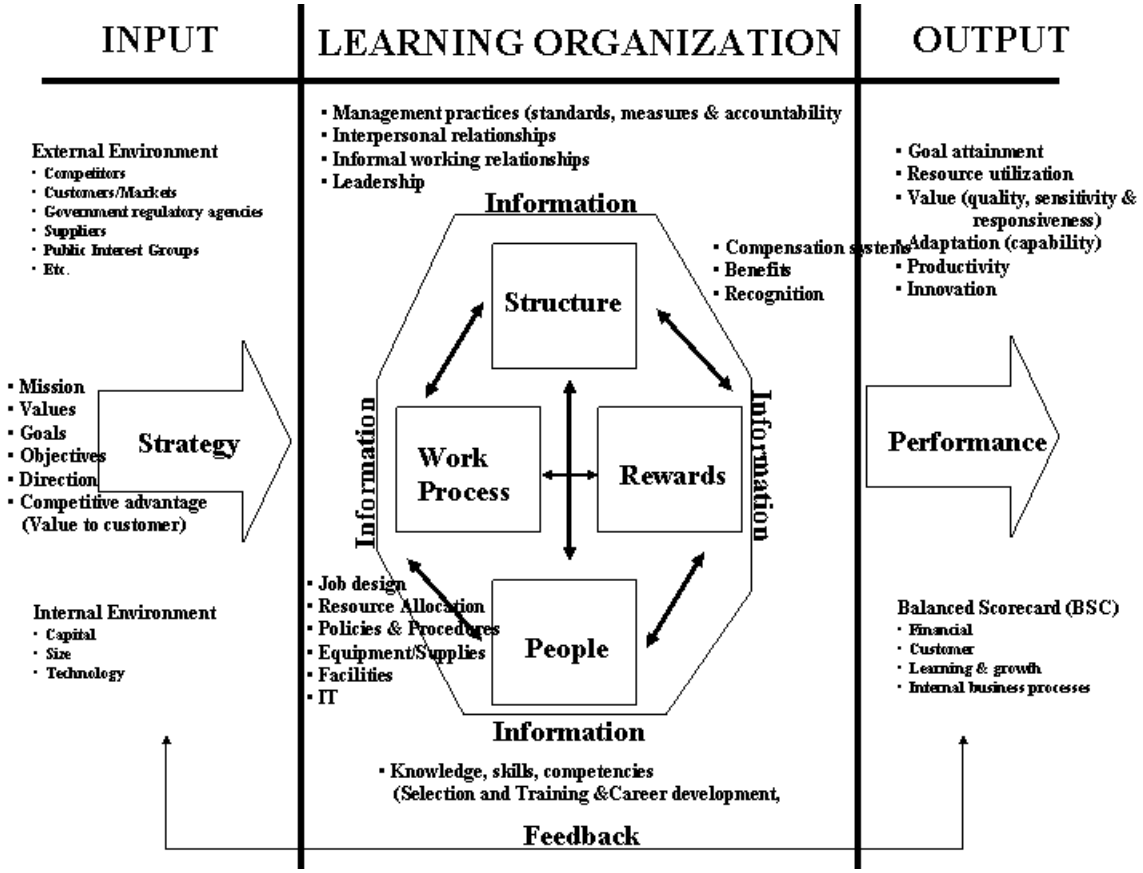
Mechanistic vs. Organic Paradigm

Mechanistic Paradigm	**Organic Paradigm**
Belief in scientific method as the only valid approach to knowledge	The human spirit is the mode of consciousness through which we will become aware of the entire human species
Views the universe as a mechanical system composed of elementary building blocks	Has a systems approach which integrates the wholes with the parts, they cannot be separated
View of life in society as a competitive struggle for existence	Has a holistic "deep ecology" perspective which sees humans as interconnected with all other systems
Belief in unlimited material progress to be achieved through economic and technological growth	Seeks to achieve a sustainable balance of resource inputs, outputs, and impacts on the overall ecosystem.
Administration of control over others through structure and hierarchy	Influence over others, not dominance, networks are the ideal structure
Modes of thinking: • Self-assertive • Rational • Analytical • Reductionist • Competitive • Control • Expansion • Quantity • Dominance • Yang	Modes of thinking: • Integrative • Intuitive • Synthesis • Holistic • Collaborative • Network • Conservation • Quality • Partnership • Yin

Fritjof Capra (1997)

As one engages in the identification, definition, and discovery of organizational forms, the impact of external pressures, trends, and innovative developments is apparent. Technology-based global competition has created enormous pressures on firms to reduce costs while increasing innovation, quality, and customer response. This has led to the downsizing and de-layering of organizational structures. In addition, advanced communication technologies have shattered the traditional organizational boundaries marked by time, territory, and technology. Whether people work the same shift or even in the same location is far less important than the actual interdependencies and linkages that exist between these individuals and their organizational roles.

The model below provides an overview of the material included in the discussion of organizational structures, learning, and performance:



Organization is a social unit with some particular purpose. The structure of an organization is an organization's formal design as represented, in part, by an organization chart. It is the sum total of the ways in which an organization divides its tasks and then coordinates them so that it can perform effectively. Coordination devices supplement the formal organization chart and include information systems, committees, planning meetings, and liaison positions. Organization structure also designates the formal reporting relationships, including lines of authority, decision responsibility, the number of levels in the hierarchy, and the span of control of managers and supervisors.

Strategy

Strategy needs to drive organizational structure choices, and performance is the outcome of that strategy. The objective of strategy and strategic change is to create and sustain long-term high performance and competitive and economic dominance (Mische, 2001). The strategy of an organization outlines the organization's goals and its means for obtaining them.

Tracey and Wiersma (1996) emphasized three strategy dimensions: (1) operational excellence which demanded tight cost controls, avoidance of unnecessary innovation or marketing expense, and price cutting; (2) customer intimacy that focused on meeting the customer's needs and wants at the expense of cost and innovation; and (3) innovation that emphasizes the introduction of major new products and/or services.

The external and internal environments participate in the choice of strategy. An organization's external environment is comprised of forces outside the organization that affect its performance. These forces include competitors, customers/markets, government regulatory agencies, suppliers, and public interest groups. Some organizations face relatively static environments, meaning that few forces change in their external environment. Other organizations face dynamic external environments where turbulence exists resulting from exponential change.

Organizational capability is a fundamental source of sustainable advantage; it is leverage for firms today that seek to fundamentally better their competitive positions. It is the capacity of the organization to perform existing missions, take on new missions, or utilize new technology quickly and easily. Organizational capability depends upon the knowledge, skills, and abilities of the workforce. Capabilities are shared as characteristics of the enterprise as a system as opposed to capabilities of an individual. These capabilities result from experience, knowledge, individuals' skills and abilities, relationships, structures, and shared learning. They form the core of the intellectual capital of an organization (Nadler, 1988). Since capabilities are characteristics of the system and not individuals, and because they result from shared learning, competitors find it difficult to copy. However, change is exponential and external environmental forces are volatile and hostile. Hence, the shelf life of intellectual capital represented by organizational capability is short-lived. Using Wheatley's observation that organizations are self-organizing, those firms that can take advantage of new concepts of organization in a way that enables shared learning and the development of new, needed capabilities will be the firms that win. Prahalad and Hamel (1990) refer to capabilities as an organization's core competence. For example, talent is GE's core capability.

Internal environmental factors include the size of the organization and its technology. Size is the number of individuals employed, and technology is how an organization transfers its inputs into outputs. Every organization has at least one technology for converting its financial, human, and physical resources into products and/or services. The common theme that differentiates technologies is how routine or repeatable they may be. Automated and standardized operations characterize routine technologies, while customization defines non-routine activities.

Structure

The critical issue in determining organizational structure is its fit with the nature of the work to be done (work processes) and the current business environment. Since even the most perfect strategy depends upon people for its execution, learning is integral to the organization. Learning depends first on the information flow to the people. Therefore, the fundamental task of organizational structure is to process information. Information must be able to move around the

organization (i.e. information about markets, rules, performance measures, and behavior). Organizational capabilities require different patterns of information movement to accomplish the work and attain strategic goals and objectives. Organizational structures differ in their ability to process information; different structures facilitate the movement of information in varying ways (Nadler, 1983). Three structural dimensions determine how information is processed: grouping, linking, and management and operating processes.

Grouping involves the aggregation of work functions, positions, and individuals into work units. Grouping affects information processing capacity because it is more difficult to move information across the boundaries of groups than it is within the same group. Linking devices, (i.e., integrators, and hierarchy), connect different groups. Linking facilitates the movement of information among groups. Management and operating process, (e.g., IT systems and human resource management systems), also move information around and support the operation of groups linked together. Organizational effectiveness is optimal when the information processing capacities of the structure fit the information processing requirements of the work.

Hence, Robbins, Daft and Steers identify seven elements define organizational structure:

1. Work specialization: The degree to which tasks in organizations are subdivided into separate jobs. This concept is also known as the division of labor. (One of the cooperative readings is about the division of labor.) Rather than a whole job being done by a single person, it is subdivided into parts with each individual assigned a specific part. Individuals specialize in one part of the activity and not the activity in its entirety.
2. Departmentalization: The basis by which jobs are grouped together. There are several ways to group jobs:
    a) Function. Hence, we have personnel, human resources, engineering, marketing, research and development, and other departments.
    b) Product. For example, GM is organized according to Saturn, Cadillac, Chevrolet, Buick, Oldsmobile, and Pontiac.
    c) Geographic Region. Some organizations organize around North America, the Southern Cone, the Pacific Rim, Asia, Europe, and Central America.
    d) Process. At Reynolds Aluminum, NY, production is organized into five departments: casting; press, tubing, finishing, inspecting, packing, and shipping. Each department specializes in one phase of the production of aluminum tubing.
    e) Customer. Use a particular customer as the basis for organization. Microsoft has divided some of its divisions into customer segments, such as consumers, large corporations, small businesses, and software developers.
3. Integration: The bridges between departments so the organization performs as a coherent whole. Integrating mechanisms facilitate information sharing and coordination in both vertical and horizontal directions but have no formal authority.
4. Chain of Command: The unbroken line of authority that extends from the top of the organization to the lowest echelon and clarifies who reports to whom.
5. Span of control: The number of subordinates a manager can efficiently and effectively direct.
6. Centralization: The degree to which decision making is concentrated at a single point in the organization.
7. Decentralization: Decision-making discretion is pushed down to lower-level employees.
8. Formalization: The degree to which jobs within the organization are standardized. A highly formalized job allows an individual little discretion over what is to be done, when it is to be done, and how it is to be done.

In examining organization structures, one defines the presence of each of the seven elements within that structure. There are two organizational design models and five structural forms. The models include mechanistic and organic and the structural forms include simple structure, bureaucracy, hybrid structure, adhocracy, and market-based, network organizational form.

MODELS

1. Mechanistic Model: A structure characterized by extensive departmentalization, high formalization, a limited information network, and centralization. The environment is based on authoritarian management and permanent organizational structures. Knowledge is formally documented and is delivered from top to down. A mechanical environment produces stability and controlled quality.
2. Organic Model: A structure that is fluid, uses cross-hierarchical and cross-functional teams, has low formalization, possesses a comprehensive information network, and relies on participative decision making. The environment is based on empowering management and cooperation. It is everyone's responsibility to evaluate action and to improve performance. Knowledge is experience-based and it is enhanced through reciprocal dialogue and communication. An organic environment produces adaptive development of performance.

STRUCTURAL FORMS

1. Simple Structure: A structure characterized by a low degree of departmentalization, wide spans of control, authority centralized in a single person, and little formalization.
2. Bureaucracy: A structure with highly routine operating tasks achieved through specialization, very formalized rules and regulations, tasks that are grouped into functional departments, centralized authority, narrow spans of control and decision making that follows the chain of command from the top of the organization to the first-line supervisor. Standardization characterizes bureaucracy.
3. Hybrid Structure: A structure that contains elements of both the functional and self-contained unit structure. In other words, the organization has self-contained divisions, but a few functions are maintained as centralized functional departments. An example of this type of organization would be one where each product division has its own functional departments of accounting, finance, legal, human resources, manufacturing, purchasing, and distribution, etc.
4. Adhocracy: A structure designed to be flexible so they may adapt to complex, rapidly changing environments. It is an organic type of organization and coordination is largely achieved through mutual adjustment. Cross-functional grouping, liaisons, and other integrative roles and structures characterize the adhocracy. The adhocracy stands in sharp contrast to the bureaucracy.

Bureaucracy	**Adhocracy**
Size with an emphasis on internal control	Speed with an emphasis on the external customer—quick customer response and new products to market
Formalization with clearly defined and separated job roles	Flexibility where individuals are continuously learning new skills so that they can perform multiple roles in the constant environment of job shift.
Specialization and division of tasks	Integration characterized by collective competencies for integrated customer solutions
Control and command of persons and activities	Innovation where there is reward for the new, different, and unthinkable.

Types of adhocracies include:

- Matrix: A structure that creates dual lines of authority; combines two or more of the five groupings found under departmentalization, such as product and function.
- Horizontal or "Boundaryless Organization": A structure characterized by horizontal networks of process-focused teams driven by customer needs and inputs leading to de-layered or flat organizational structures.
- Parallel: The creation of an adhocracy within the bureaucratic structure. It creates a series of rotating task forces, appointed by a steering committee, focused on specific issues, such as employee concerns, data gathering, strategy planning, diagnosis and problem solving, organizational interventions, and implementation.
- Market-Based, Network Organizational Form: Cooperative networks along the entire industry value chain (encompassing the different stages from raw materials through the delivery to the end customer) characterize this organizational form. The organization is founded in an emphasis on bottom-up entrepreneurship and a reliance on those networks that allow the entrepreneurial units to share their competencies with one another (Bowditch and Buono, 2001).
- Internal Market Organization: This form is comprised of a series of internal enterprises or markets that go beyond the market orientation of the divisional form and the dual focus form of the matrix. The following three principles characterize this organizational structure:
  a) The hierarchy is transformed into internal enterprise units, the entrepreneurial equivalent of departments and divisions.
  b) An economic infrastructure guides decisions.
  c) Leadership focuses on developing collaborative synergy (Bowditch and Buono, 2001).
- The Front-Back Approach: This approach creates and internal and external market structure to produce coordination where it is desirable and independence where it is desirable. The back end is responsible for developing and delivering the organization's products or services. The front end is responsible for delivering the organization's products or services to particular customer groups. An organization may have one or more units in the front and back ends (Lawler, 2001).
- Network/Virtual/Modular/Pyramid: These are generally small central core firms that rely on other companies to perform (outsource) their basic business functions. Hence, they are considered multi-organizational because they are comprised of a nexus of relationships, e.g., joint ventures, value-added partnerships, subcontracting) with firms headquartered anywhere in the world (Bowditch and Buono, 2001).

Learning

Knowledge

Learning and knowledge are the most valuable and essential core competencies of a high-performing organization. Knowledge is generated, used, and assimilated by people at unprecedented rates of speed and is accessible to an ever-expanding literate population. Knowledge is also becoming embedded in processes that are being delivered through technology. The result is "extraordinary human and technological leverage, more responsive organizational and process designs, and higher performance" (Mische, 2001). And what is knowledge? According to Davenport and Prusak (1998), knowledge is the final product of data and

information. It is the result of formal and informal learning, experience, institutionalization and ability, and incorporates tacit adaptation and extension.

According to Mische, there are five strategic tenets of knowledge:

1. Knowledge is the only true unique asset that any organization has. Virtually everything else that it does or has, including its products, suppliers, prices, customers, and processes, are replicable by a competitor. But its knowledge is wholly unique; therefore, it can be strategic.
2. Knowledge enables an organization to anticipate changes and compete in many different ways and in many different venues; therefore, it can be a catalyst and sustaining element of strategic change. Thus, knowledge is strategic because it supports social, commercial, and functional differentiation.
3. Products, processes, services, and performance are the result of knowledge. Knowledge is a source of competitive advantage because it is determinate of the quality, functionality, and success of these components and outcomes in the marketplace.
4. Knowledge allows an organization to structure itself differently, develop its people, attract new people, and perpetuate and reinvent itself.
5. Effectively using and adapting knowledge to the strategic intentions of the organization is one of the most important competencies that an organization can develop and possess. Thus, learning and knowledge are inextricably linked. An organization cannot leverage knowledge for its strategic betterment unless it can learn how to use it, create it, and it does an organization little good to learn knowledge it is not relevant to its immediate needs and longer term strategic objectives.

Organizational Learning

Learning is integral to competing successfully. It drives an organization's strategies, products, and operations. If an organization has a low propensity to learn, its ability to change is compromised. Therefore, it is a critical competency for organizations to capture, institutionalize, and disseminate knowledge. Many CEOs today and in the past decade have repeatedly made this statement that is represented here by Arie de Geus, retired CEO of Shell, "the ability to learn faster than your competitors may be the only sustainable competitive advantage" (de Geus, 1997). Today, earning a living is synonymous learning a living. The learning organization never achieves a final state but continues to learn and transform itself indefinitely because change never ends.

According to authors Tom Cummings and William Snyder, "Learning is organizational to the extent that: (1) it is done to achieve organizational purposes; (2) it is shared or distributed among members of the organization; and (3) learning outcomes are embedded in the organization's systems, structures, and cultures" (Mische, 2001). Learning organizations have greater propensity for successfully recognizing the need for change, understand the forces driving change, and navigate the change. So what is a learning organization? According to Senge (1990), it "is an organization where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective inspiration is set free, and where people are continually learning how to learn together."

An organization must continually focus on better ways of doing things! Senge (1990) stresses that revealing and challenging "mental models," those shared, unspoken influential assumptions within an organization that influence how organizational members understand the world and how they will take action, is critical in a learning organization. Mental models control what people perceive can or cannot be accomplished. Therefore, change rarely takes place until management changes their shared mental models. This unlearning, both at an individual and collective level, is

a process that is very difficult for the organization and the individual. This inability to unlearn results from thinking that their value to the organization will be decreased because their current competencies and behavioral patterns will be invalidated by new knowledge (Mische, 2001).

Going further, Argyris and Schon (1996) emphasize the necessity of continuously challenging the status quo through "double-loop learning." Double loop learning involves questioning the bases of typical responses and sometimes results in alterations of those underlying assumptions. It is more than detecting and correcting an error; it also includes the discovery and exploitation of opportunity. Double-loop learning is generative while single-loop learning is adaptive (Senge, 1990). This means that in single-loop learning, one responds to an error by adjusting to the environment, modifying behavior to fit better for the environmental conditions. In double-loop learning, with the alteration of those underlying assumptions, there is transformational change--producing something new. Generative learning is concerned with building new competencies, or identifying and creating opportunities based on leveraging existing competencies to generate new business opportunities. That is creativity, innovation, and growth. Double-loop learning is action learning-oriented with a continual cycle of learning (reflecting) and doing. Learning is a cyclical process involving the evaluation of past behavior, the discovery of error or opportunity, the invention of new behaviors, and their implementation. This is truly productive organizational learning (Lipshitz, Popper, and Friedman, 2002).

However, as Stonehouse and Pemberton state, the nature of today's turbulent, chaotic environment necessitates that a learning organization go beyond adaptive and generative learning, placing an emphasis on "learning about learning" itself. In so doing, one creates an organizational context that both nurtures new knowledge and exploits its existing knowledge assets. Learning about learning results in a paradigm shift, the kind of which Margaret Wheatley promotes in her communications.

Knowledge

Before there is learning, there is knowledge. According to Mische (2001), "As knowledge travels through the organization, it is constantly being modified, gaining, or losing power, changing directions, encountering barriers, and confronting challenges as well as identifying new knowledge sources and uses. As it is used and reused, its value moves in an exponential relationship to its use. The higher and more frequent its use, the more valuable the knowledge." All entities have a combination of tacit and explicit knowledge. Tacit knowledge is personal, context-specific, and difficult to communicate and extract. Explicit knowledge is the formal knowledge that is captured, codified, and taught. It can be communicated and expressed in formal, systematic language. Explicit knowledge is usually accessible.

Collaborative Knowledge-sharing

Collaboration is the coming together of talented individuals with divergent, and sometimes conflicting, backgrounds, life experiences, perspectives, and personalities to solve a problem or undertake a business issue. The most productive, dynamic, and innovative teams result from highly diverse individual members who have open minds, a passion for learning, and a profound appreciation of unlimited accomplishment opportunities. Although members have different background, life experiences, perspectives, and personalities, they are driven by the same passions, personal commitments, the common belief in what they are doing, and a sense of trust in their teammates.

Collaborative knowledge sharing is vital to the creation of new knowledge and competencies, as well as the dissemination of new knowledge throughout the firm and between the firm and collaborating businesses. One can't learn all that one needs to know because technologies

develop too quickly to let the most common type of learning, life experience, keep up with the technologies in life. Individuals cannot be as knowledgeable as they need to be anymore. So, each person must capture what one experiences in a collective medium so that each individual is as knowledgeable as the best one among the group. Individuals differentiate themselves, not by what they know, but by what they can learn through the application of this knowledge. This way, customers get the best knowledge to date, they contribute to their collective knowledge, and they develop new ways of managing and evolving that knowledge together. The skills necessary to do that as a part of a community of users are critical and in high demand. Repeating known information is only of value to the extent that it is inaccessible through other sources.

However, access to information is no longer the biggest challenge. The current challenge is teamwork, the development of relevant perspectives, uncovering root issues, and developing a richer understanding of relationships. The environmental context, the influences and drivers of one's current and future business, forms the basis for collaborative knowledge sharing. Also involved in the equation is the work requirements and the performance system that reinforces the desired outcomes, and subsequently redefines the work itself, ultimately causing one to reframe his/her own environmental context.

Traditional hierarchical and bureaucratic organizations, heavily reliant on rules and procedures, hinder the development and transfer of knowledge by stifling initiative, risk-taking and innovation, and a tendency to reward behaviors other than high performance. In addition, the different levels and rigid horizontal and vertical divisions in a hierarchical structure hamper the building, diffusion, coordination, and control of knowledge. Communication is distorted as it passes through hierarchical levels and cross-functional boundaries. Structures emphasizing flatter organizations with reduced cross-functional boundaries and greater networks and integration foster learning and managing knowledge. Yet, because the development of new knowledge is dependent upon the interchange of ideas between specialists in the same field, there is also the need to establish various functional groupings. Therefore, organizational knowledge must be holistic to endure that specialist knowledge from related areas is fully integrated. Hence, organization structure must encourage both coordination and diffusion among different groups and synergy among the specialists. So what is the ultimate organizational structure that promotes learning resulting in high performance? That is a question for debate within this course.

Learning organizations provide an array of opportunities and situations for its workers to capture learning. Three aspects of internal organizational context that ensure collaborative knowledge sharing are (1) Care in organizations, (2) "Ba," and (3) Communities of Practice. Care in organizations refers to high-quality caring relationships where individuals feel that their perspectives and insights are heard and respects. Nonaka identifies several dimensions of care, such as mutual trust, active empathy, access to help, lenience in judgment, and courage. "Ba," a Japanese concept, is considered shared space for merging relationships. The space may be virtual, mental, physical, or any combination of the three. Organizational structure can promote "Ba" which provides a platform for advancing individual and collective knowledge. Communities of practice are a group of individuals who form together to share a repertoire of knowledge. They are often used to transfer explicit and tacit knowledge between individuals.

Technology

Technological solutions, particularly those in information and communications technology, are also imperative to collaborative knowledge sharing. As learning is the journey, technology is the road. Without it, one does not go far quickly. At the same time, collaboration is behavioral; it is a human and social process, not a technological dependent event. Specifically, technology affects the quantity and quality of organizational learning. It speeds the flow of information (i.e.,

knowledge creation), stores information (i.e., a knowledge store), and makes information easy to update and access (i.e., the sharing and transfer of knowledge). Knowledge stores are more familiarly called databases and repositories. Some familiar repositories are named lessons learned, best practices, and FAQs.

The learning organization is evolutionary by nature. As individuals and organizations share knowledge, it is questioned, modified, improved, and amplified to produce a new higher knowledge base for the next cycle of growth. The development of knowledge-based core competencies is a necessary feature of the learning organization. The resulting adaptability and increased organizational responsiveness ensure that competitors find it difficult to identify, understand, and emulate such competencies. Converting knowledge into core competencies and competitive advantage essentially depends on sharing and coordinating knowledge within the organization and will collaborating businesses. Learning organizations, because of their exemplary ability to learning and share, are more ready to anticipate and even create new customer needs, generating even newer sources of competitive knowledge. This is the essence of strategic renewal.

Performance
Index Measures for Performance

Relative to the S&P 500 or other appropriate index measure, its industry, and other high value-creating companies, what has been the five-year annual financial performance of the organization as described by:

- Annual sales growth
- Rate of earnings growth and new operating margin percentages
- Earnings per share (EPS) growth
- Rate of market capitalization
- Dividend payout
- Investment in new property, plant, and equipment
- Acquisitions and divestitures
- Liquidity and long-term obligations as a percentage of assets
- Stock price performance
- IT expenditures as a percent of revenues and per employee
- Training and development expenses per employee
- Revenues per employee
- Profitability per employee
- Percentage of revenue and profit derived from new products and major product extensions
- Quality of earnings

Traditional measures of performance:

- Profit growth
- Share dividend
- Profit per employee
- Return on investment
- Asset/revenue ratio
- Revenue
- Total value of sales

Factors determining future success: Quality of service customers receive

- Product development times

- Responsiveness to customers
- Fault-report frequency and resolution
- Customer loyalty
- Relative perceived value by customers
- Speed, flexibility, and ability to adapt

Intangibles account for more of the market value: From 20% in 1980 to 70% in 1998 (Lawler, 2001). Investors say that non-financial measures are important: 35% of investment decisions are driven by these non-financial measures. Management is the most important non-financial asset. Since investors are now recognizing the human side of organizations, it must be an important asset!

Leadership is an institutional capacity as well as an individual competency. This means that the leadership of a firm consistently exhibits alignment and adaptability capabilities. Both are necessary for success. Alignment is defined as a high degree of consistency and coherence among an organization's strategy, systems, processes, communications, technologies, HR and management practices, beliefs and values, rewards, and renewal activity. Adaptability is the ability to detect and cope successfully with changes in the external environment, especially when such changes are difficult to anticipate. The adaptability capability directly points to a transformational leader, an individual who can lead, manage, and sustain change. This is especially important when there is the need to develop and implement a new strategy—both equally important to the survival of a firm.
Changing a structure does not necessarily mean adaptation without the appropriate leadership at the helm.

Transformation leadership implies a need to manage knowledge rather than the traditional hard assets and bureaucratic mechanisms of the classic organizational paradigm. It has more to do with access than assets. A learning organization demands that not only individuals within the organization acquire new knowledge, skills, and competencies, but also that the organization continually challenges its underlying beliefs and assumptions. The primary performance measure has changed from how well the organization can predict and control to how well it can respond and rise to the challenge of change. What good is it to have more free movement of information if people cannot discuss the information that is most important and also most threatening to the organization and its leadership? Hence, leadership is no longer viewed as a relationship between followers, subject to change as conditions warrant, but rather what the leader needs to do in order to foster strong relationships with others in and outside the organization (Wheatley, 1996).

Leadership embeds and transmits culture, and every organization has culture. They accomplish this through the use of primary and secondary mechanisms.

1. Primary mechanisms
    - Attend, measure and control
    - Reaction to critical incidents
    - Role modeling
    - Reward people who do it right—who are congruent to the organization's values
    - Excommunicate those who don't do it right
2. Secondary mechanisms
    - Organization design/structure
    - Organization procedures and practices
    - Stories, myths, and legends—because these evolve around the organization's values and are transmitted continuously. One of the methods used to accomplish this is storytelling.
    - Formal charters
    - Physical space—who has got what type of office, and where it is.

So what is culture? What is its role to organizational structures and learning and performance? According to Schein (1997), "Culture is a pattern of values, norms, and behavior invented, discovered, or developed to cope with survival problems and taught as the correct way to behavior or feel." Culture is the feeling or climate within an organization and is observed through behavioral regularities or rituals; the way we do things around here. It is the philosophy that guides policy toward employees and customers. Cultures are historically based; they do NOT spring up overnight. It arises from the unique history of a particular group that is coping with a specific, unique set of physical, social, political, and economic circumstances. Culture comes to be because the leaders of the organization invented it by what they do, how they do things, how they respond to the internal and external environment changes. It is the effect of what leaders believe. That is why it is so necessary for leaders to model new behaviors.

Culture shapes an organization's business endeavors and organizational behavior, thereby impacting individual and organizational performance. Kotter and Heskett (1997) link culture types with performance. They define three types of culture: strong, strategically appropriate, and adaptive. They maintain that the correlation between cultural type and performance is appropriate to the context or environment in which the firm is engaged. This is the same as the belief of fit between structure and environment. In addition, Cultures that are adaptive, as measured by their core values, outperform cultures that are less adaptive.

1. Strong: Reflects a set of assumptions and values that are typical of the founder. Through the force of this character, these assumptions and values become embodied in the very fabric of the enterprise. These firms characteristically have a clear mission and forceful, entrepreneurial leadership.
2. Strategically Appropriate: The concept is that of the degree of fit between the context and the values and behaviors that are deemed important. Only those organizations that have a degree of fit can be expected to demonstrate excellent performance while those with a poor fit will perform poorly.
3. Adaptive: Only cultures that help organizations anticipate and adapt to change will be associated with superior performance over the long run.

Degree of Adaptability

Economic Performance of Strong Cultures
With High and Low Degrees of Cultural Fits

Company	Index of Cultural Fit (10 = High 1 + Low)	Annual Net Income Growth	Average Annual Return on Capital (%)	Average Annual Growth of Stock (%)
High Degree of Fit				
American Airlines	6.2	23.5	4.69	23.69
Bankers Trust	6.5	45.3	9.84	20.43
PepsiCo	5.5	22.2	12.95	14.10
Poor Degree of Fit				
Northwest Airlines	3.7	10.3	5.24	10.65
Xerox	3.8	13.1	8.86	4.35
Texaco	2.6	9.9	5.36	4.70

Commitment to Adaptive Values and Long-Term Economic Performance

Company	Value Excellent Leadership (10 = High	Value Customers (10 = High 1 = Low)	Value Shareholders (10 = High 1 = Low)	Value Employees (10 = High 1 = Low)
High Performers				
Shell	6.2	6.5	4.5	6.6
Wal-Mart	6.8	7.0	6.8	7.0
Poor Performers				
Winn-Dixie	3.2	4.0	4.0	4.0
J.C. Penney	4.2	4.0	5.0	4.8

Kotter and Heskett (1997) suggest that there are three ways in which culture affects performance:

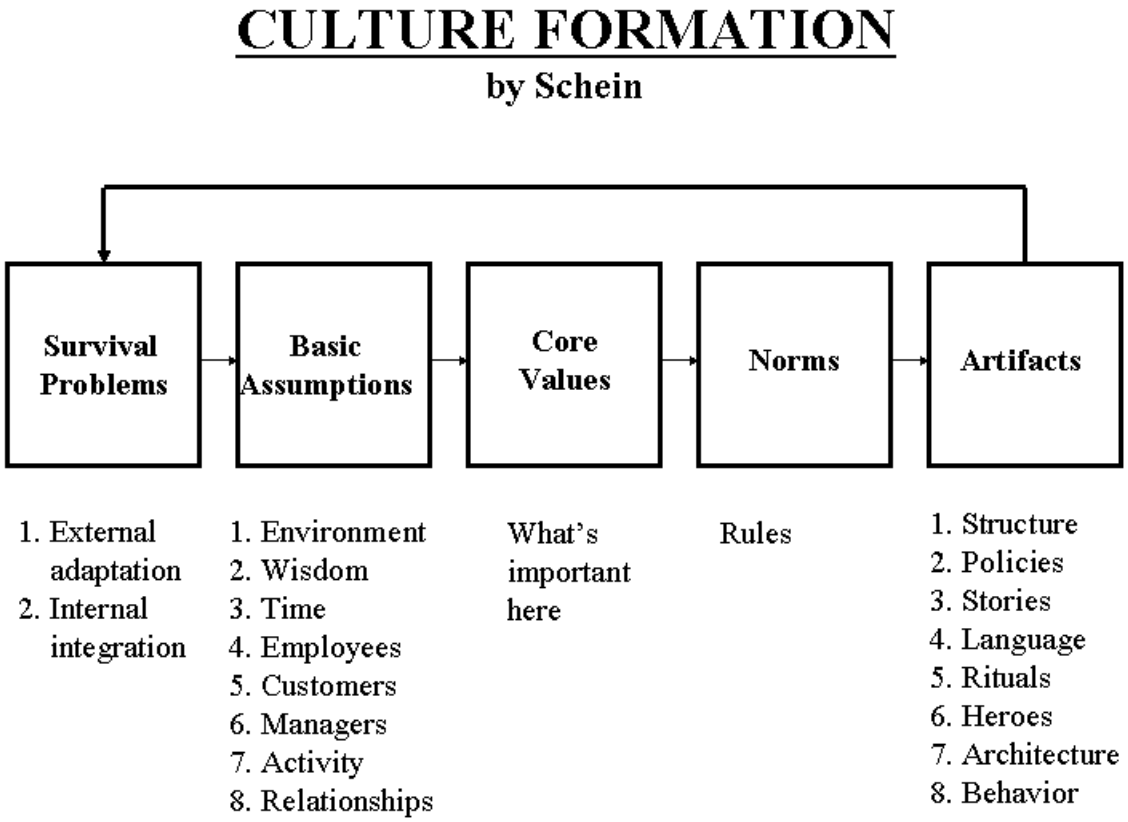
1. Culture can bring about a high degree of internal goal alignment. When people are aligned around shared values and goals, then enormous amounts of energy can be brought to bear on goal accomplishment.
2. Culture affects the level of motivation of people. When persons can make real contributions to causes in which they really believe, then they are intrinsically motivated to contribute. Individuals who are intrinsically motivated, i.e., when they are working toward goals that they value, work harder, persist longer, and perform better than when they are working towards goals for which they lack commitment.
3. Culture provides social constraints over behavior and practice, often in the absence of any formal set of policies and procedures.

A PRIMARY PURPOSE OF CULTURE IS TO COPE WITH SURVIVAL PROBLEMS

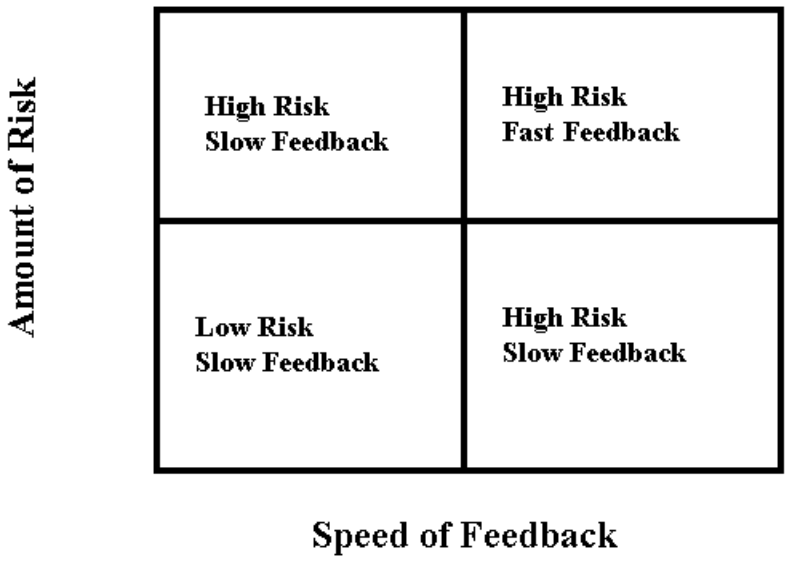
- There are two kinds of survival issues: External Adaptation and Internal Integration
- External Adaptation: These problems evolved from outside the organization—in its environment so this is what it engages to survive
    1. Mission
    2. Goals
    3. Strategy
    4. Measurement (We are what we measure)
    5. Correction or feedback

- Internal Integration: These are what are internal to the organization.
    1. Common language
    2. Group boundaries
    3. Power and status
    4. Intimacy (the way we dress at work)
    5. Rewards and punishments
    6. Ideology

Culture Formation



CULTURE TYPES



- Survival Problems: External Adaptation and Internal Integration
- Basic Assumptions
  - A management style will evolve within the prevailing set of values and beliefs held by the organization. There is much literature and research out there on management styles and their association with corporate cultures. Power orientation: usually a small entrepreneurial business
    1. Role orientation: a heavily proceduralized bureaucracy
    2. Task orientation: emphasizes team and achievement and people here are generally internally motivated.
    3. Support orientation: bonds work groups through close, warm relationships
- Core Values
- Norms: Rules that regulate that for the most part aren't even written down
- Artifacts: The products of the culture, such as heroes, stories, etc.
- When the culture is faced with one of two challenges—either internal or external—it will change. There will be new assumptions that lead to new core values that cause new behaviors to evolve (for we reward the behaviors we want to see, i.e., behaviorism: positive and negative reinforcement) and all of this will be reflected in new artifacts for artifacts represent the overt level of culture. Overt is what we see that lets us know about the culture.

Adaptive organizations are responsive both internally and externally. They gather data and use data from their internal environment so that they can align and coordinate the systems and processes required to deliver quality services to customers. As externally responsive, they gather and use data from their external environment—customers, suppliers, and other sources and express the results in corporate vision, mission, values, and strategy. In addition, adaptive organizations exhibit integrated wholeness, a unified vision, mission, and values. In other words,

adaptive organizations are open and not closed. This table will illustrate the contrasts between open and closed organizations, some of which reflect performance, learning, and structure.

Openness is the quality of organizations that are effective at listening to information and using this information to enhance or improve adaptability. They are learning cultures. Learning means, as stated previously, to make different responses to the environment to ensure growth. An open culture can successfully plan and execute transformational change. Systems, structures, strategies, staff, skills, science/technology, and leadership/managerial style all work together to achieve the goal of economic survival, employee well-being, and increased value for stakeholders (customers, shareholders, employees). Rewards and routines are aligned with and support the overarching purposes and values inherent in the culture. Everything works together toward high performance, sustained competitiveness, and economic success (Mink, Shultz, Mink, 1979).

According to Bennis and Philip Slater (1968), the open organic system is an embodiment of the democratic process. An open system with full interaction among all its parts and with its external and internal environments has resources for renewal. This relates to Wheatley's concept of the democratic organization.

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