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INTRODUCTION

THE EVOLUTION OF ORGANIZATION THEORY AND DESIGN

Organization theory is not a collection of facts: it is a way of thinking about organization. Organization theory is a way to see and analyze organizations more accurately and deeply than one otherwise could. The way to see and think about organizations is based on patterns and regularities, define them, measure them, and make them available to the rest of us. The facts from the research are not as important as the general patterns and insights into organizational functioning.

HISTORY

Organization design and management practices have varied over time in response to change in the larger society you may recall from an earlier management course that modern era of management theory began with the classical management perspective in the late nineteenth and early twentieth century. The earlier of the factory system during the Industrial Revolution posed problems that earlier organizations had not encountered. As work was performed on a much larger scale by a larger number of workers, people began thinking about how to design and manage work in order to increase productivity and help organizations attain maximum efficiency. The classical perspective, which sought to make organizations run like efficient, well-oiled machines, is associated with the development of hierarchy and bureaucratic organizations and remains the basis of much of modern management theory and practice. Two subfields of the classical perspective are scientific management and administrative principles.

Scientific Management: Pioneered by Frederick Winslow Taylor, scientific management postulates that decisions about organizations and job design should be based on precise, scientific study of individual situations. To use this approach, managers develop precise, standard procedures for doing each job, select workers with appropriate abilities, train workers in the standard procedures, carefully plan work, and provide wage incentives to increase output. Taylor's approach was used in the unloading of iron from rail cars and reloading finished steel for the Bethlehem Steel plant in 1898. Taylor calculated that with correct movements, tool, and sequencing, each man was capable of loading 47.5 tons per day instead of the typical 12.5 tons. He also worked out an incentive system that paid each man $1.85 per day for meeting the new standard, and increase from the previous rate of $1.15. Productivity at Bethlehem Steel shoots up overnight. These insights helped to establish organizational assumptions that the role of management is to maintain stability and efficiency, with top managers doing the thinking and workers doing what they are told.

Administrative Principles: Whereas scientific management focused primarily on the technical core on work performed on the shop floor administrative principles looked at the design and functioning of the organization as whole. For example, Henri Fayol proposed fourteen principles of management, such as "each subordinate receives orders from only one superior" (unity of command) and "similar activities in an organization should be grouped together under one manager" (unity of direction). These principles formed the foundation for modern management practice and organization design. Fayol believed these principles could be applied in any organizational setting. The scientific management and administrative principles approaches were very powerful and gave organizations fundamental new ideas for establishing high productivity and increasing prosperity. Administrative principles in particular contributed to the development of bureaucratic organizations, which emphasized designing and managing organizations on an impersonal, rational basis through such elements as clearly defined authority and responsibility, formal recordkeeping, and uniform application of standard rules. Although the term bureaucracy has taken on negative connotations in today's organizations, bureaucratic characteristics worked extremely well for the needs of the Industrial Age. Following classical management theory, other academic approaches emerged to address issues such as the social context and workers' needs.

The Hawthorne Studies: Early work on industrial psychology and human relations received little attention because of the prominence of scientific management. However, a major breakthrough occurred with a series of experiments at a Chicago electric company, which came to be known as the Hawthorne Studies. Interpretations of these studies concluded that positive treatment of employees improved their motivation and productivity. The publication of these findings led to a revolution in worker treatment and laid the groundwork for subsequent work examining treatment of workers, leadership, motivation, and human resource management. These human relations and behavioral approaches added new and important contributions to the study of management and organizations.

However, the hierarchical system and bureaucratic approaches that developed during the Industrial Revolution remained the primary approach to organization design and functioning well into the 1970s and 1980s. In general, this approach has worked well for most organizations until the past few decades.

However, during the 1980s, it began to lead to problems. Increased competition, especially on a global scale, changed the playing field. Many North American companies were saddled with bloated administrative ratios and professional staff ratio. International competition from Europe and Japan provided the rude awakening. For example, Xerox discovered it was using 1.3 overhead workers for every direct worker, while its Japanese affiliate needed only 0.6 overhead workers. By the 1980s North American companies had to find a better way. AT&T cut thirty thousand managers during the 1980s. The manager of Chevron and Gulf led to the dismissal of eighteen thousand employees, many of whom were managers.

The 1980s produced new corporate cultures that valued lean staff, flexibility, rapid response to the customer, motivated employees, caring for customer, and quality products. The world was changing fast because corporate boundaries were altered by waves of merger activity, much of it international, and increased international competition. Today, the world and thus the world of business are undergoing a change more profound and far-reaching than any experienced since the dawn of the modern age and the scientific revolution. Just as civilization was altered irrevocably in the transition from the agrarian to the industrial age, emerging events are changing the way in which we interact with one another in our personal and professional lives. Old organization forms and management methods are inadequate to cope with new problems in the emerging postmodern world.29 the net effect of the evolving business environment and the evolving study of organization theory is the use of contingency theory to describe and convey organizational concepts, as well as a new, more flexible approach to management and organizational design.

Contingency Theory: Organizations are not all alike. Many problems occur when all organizations are treated as similar, which was the case with scientific management and administrative principles approaches that attempted to design all organizations alike. However, the structures and systems that work in the retail division of a conglomerate will not be appropriate for the manufacturing division. The organization charts and financial procedures that are best for a new entrepreneurial Internet firm like MaMaMedia will not work for a large food processing plant.

Contingency means that one thing depends on other things, and for organizations to effective, there must be a "goodness of fit" between their structure and the conditions in their external environment. What works in one setting many not work in another setting. There is not one best way. Contingency theory means "it depends" For example, some organizations may experience a certain environment, use a routine technology, and desire efficiency. In this situation, a management approach that uses bureaucratic control procedures, a functional structure, and formal communication would be appropriate. Likewise, free-flowing management processes work best in an uncertain environment with a non-routine technology. The correct management approach is contingent on the organization's situation.

Today, almost all organizations operate in highly uncertain environments. Thus, we are involved in a significant period of transition, in which the dominant paradigm of organization theory and design is changing as dramatically as it was changed with the dawning of the Industrial Revolution.

CURRENT CHALLENGES
Research into hundreds of Organizations provides the knowledge base to make IBM and other organizations more effective. For example, challenges facing organizations at the beginning of the twenty-first century are quite different from those of 1970's and 1980's, and thus the concept of organizations and organization theory is evolving. For one thing, the world is changing more rapidly than ever before. In a survey of top executives, coping with rapid change emerged as the most common problem facing managers and organizations today. Some specific challenges facing IBM and other organizations are competing globally, embracing changes, competing through e-commerce, managing knowledge and information, supporting diversity and maintaining high standards of ethics and social responsibility.

Global Competition
"The cliché that the works is getting smaller" is dramatically true for today's organizations. With rapid advances in technology and communications, the time it takes to set influence around the world from even the most remote locations has been reduced from years to only seconds. Business is becoming a unified global field as trade barriers fall, communication becomes faster and heaper,, and consumer tastes in everything from clothing to cellular phones coverage. Thomas Middelhoff of Germany's Bertelsmann AG, which bought US Publishers Random House, put it

this way. "There are no German and American companies. There are only successful and unsuccessful companies." In the twenty-first century, organization will have to feel "at home" anywhere in the world. Companies can locate different parts of the organization where it makes the most business sense; top leadership in one country, technical brainpower and production in other locales. For example, Canada's Northern Telecom selected a site in the southwest of England as its world manufacturing center for a new fixed access radio product. Siemens of Germany MTS electronic ultrasound division to the United States, while the U.S Company Dupont shifted its electronics operation headquarters to Japan.

Although this growing interdependence brings many advantages, it also means that the environment for companies is becoming extremely complex and extremely competitive. Organizations have to learn to cross lines of time, culture, and geography in order to survive. Every company, large and small, faces international competition on its home turf at the same time it confronts the need to be more competitive in international markets. Rising managers today need to know a second or third language and develop cross-cultural understanding. Large structures to remain competitive internationally, while even the smallest companies such as IBM and Ford are working to globalize their management structures to remain competitive internationally, while even the smallest companies are searching for structures and processes that help them reap the advantages of global interdependences and minimize the disadvantages.

Organizational Turbulence
For much of the twentieth century, organizations operated in a relatively stable business environment, so managers could focus on designing structures and systems that kept the organization running smoothly and efficiently. There was little need to search for new ways to cope with increased competition or shifting customer demands. All that began to change in the 1980s; a today's organizations are struggling to catch up with the changes that have proliferated since then. Advances in computers and information technology are driving many of these changes at the same time they provide ways to cope with them. Customers expect new products and services developed more often and delivered more rapidly, and they often want them customized to their exact needs. Mass production and distribution systems that can produce one-of-the-kind variations and streamlined distribution systems that deliver products directly from manufacturer to the customer. Another shift brought about by technology is that the financial basis of today's economy is information rather then the tangible assets of land, building, and capital. In this new era, the primary factor of production becomes knowledge rather then machines, increasing the power of employees. Today's knowledge workers want more than a paycheck; they expect interesting work and opportunities to participate and learn.

The mindset needed by organizational leaders is to expect the unexpected and be preparing for constant change. One of the hottest renders in recent years us the use of enterprise resource planning (ERP). These complex information systems collect process and provide information about an organizations entire enterprise, including identification of customer need, orders, product design, and production, purchasing, inventory, distribution, human resources, receipt of payments, and forecasting of future demand. These and other new types of information systems have a profound impact on the design of organization. In addition, because ERP systems integrate the whole organization, managers and employees can use the information to adjust plans and respond to opportunities at a moment's notice.

The challenge for managers and organization in most countries is not just to cope with change bit to embrace it, even create it. The organizational forms and partner of behavior that were once successful no long work, yet new patterns are just emerging. As stated in one management article, "Most managers today have the feeling that they are flying the airplane at the same time they are building".

E-Commerce
One area in which many traditional mangers feel particularly awkward is the new world of e-business or e-commerce. Within just a few years the internet has been transformed from s "toy" used by a few computer nerds to a broad communications and trade center where more than 90 million people exchange information or close deals around the world[8].Most executives know that the internet could, over the next few years, change almost everything in every industry, but more of them don't know how to transform their organizations to fit into this new world. IBM, as discussed in the opening case, is thriving again by using its know-how to help other organizations compete in the e-business era. Although business on the internet is booming, the United States and Canada are barely in the infancy of this trend, while countries in Europe, Latin America, and Asia are still in the embryonic stage. One organization that has made the transition to an internet-based, thoroughly digitalized business is Dell Computer Corporation. Dell has pioneered the use of end-to-end digital networks to keep in touch with customers, take orders, pull together components from suppliers, and ship customized products directly to consumers. This trend

towards disintermediation eliminating the middleman – will ultimately affects every industry. In a meeting of executives, consultants and professors at Harvard University, participants concluded that business today must either "Dell or be Delled."

Companies embracing the new world of e-business, whether to sell products, streamline operations, or improve communications with customers and partners, are thriving. Those that ignore the trend do so at their own peril. Even today's industry leaders will not survive if they can't compete in an Internet-driven economy. The Internet tears down boundaries of time and space, enabling-organizations to create entirely new business and reach markets they never could have before.

For example, Byers Chrysler Plymouth Dodge in Columbus, Ohio, hooked up with Autoweb.com, a Net car-buying service and is now selling twelve more cars per month including some to buyers hundred of mule away. By enabling business to link directly to suppliers, factories, distributors, and customers, the Internet breaks down boundaries between organizations and enables partnership and collaboration on a previously un-heard of scale. As one e-commerce entrepreneur put it, "If you remain insular in this business, you'll get eaten alive."

Managing Knowledge and Information
Technology also plays a key role in the trend toward knowledge management and the sharing of information across and between organizations – recognizing that intellectual capital. What employees know-matters more than any other assets today, companies seek to manage knowledge just as they manage cash flow, human resources, or raw materials. New positions such as chide information officer, chief knowledge officer, director of knowledge management, and chief learning officer reflect the importance of information and knowledge in today's organizations. Daniel Holtshouse, director of knowledge initiatives at Xerox, estimates that about a fifth of fortune 500 companies have someone who serves in the capacity of a chief knowledge officer, and the number is growing.
Information technology, including the internet, supports knowledge management and the broad sharing of information and is generally related to changes in how organizations are designed and managed. In the past, organizational hierarchies developed in part to move information up and down the system. The guiding assumption of many companies was that they ideas and decisions originated at the top and were channeled downward. Competitive companies today, though, are guided by the assumption that the organization needs idea from everyone, and that the role of manager is to find ways to open channel of communication to allow ideas, information, end knowledge to flow though-out the organization. Thus, an emphasis on knowledge management and information sharing often leads to a flattening of organization structures and greater empowerment and involvement of employees. In addition, some thriving companies, including Andersen Windows, Chevron, and Spring Field Remanufacturing, share knowledge such as best practices not only across function but also with other companies, including partners, suppliers, and even competitors, based on the belief that a mutual sharing of good ideas is the best way to keep their organizations competitive.

Diversity:
Diversity is a fact of life that now organization can afford to ignore. The workforce- as well as the customer based- is changing in terms or age, gender, race, national origin, sexual orientation, and physical ability. The average worker is older now, and many more women, people of color, and immigrants are entering the work force. Immigration accounted for nearly half of the increase in the US labor force in the 1990s, immigrants will likely constitute a growing share of workers in the twenty first century. By the year 2020, it is estimated that women will comprise fully half of the total US workforce and the Asian American, African American, and Hispanics, will make up more than 30%. People of Asia, Africa, and Hispanics, descent are expected to comprise about 35% of the US population by 2020.

The growing diversity of the workforce brings a variety of challenges, such as maintaining a strong corporate culture while supporting diversity, balancing work and family concerns, and coping with the conflict brought about by varying cultural styles. For example, add the DaimlerChrysler plant in western Alabama, managers have struggles to blend German and American worker's cultural styles. While the Germans consider most of their Alabama colleague lax, two talkative and some what superficial, the America worker find the Germans to be rigid, former, and even humorless. "The Germans are very blunt," said one worker. " You don't get politeness out of them about worked".
People from diverse ethnic and cultural background offers wearing style and organizations must learn to welcome and incorporate this diversity into the upper ranks. For e example, recent research indicated that women's style of doing business may hold important lesson for success in the emerging world of the twenty-first century. Yet the glass ceiling persists, keeping women from reaching positions of top leadership.

Ethics and Social Responsibility:

Ethics and social responsibility have become how topics in corporate America. Companies of all sizes are rushing to adopt codes of ethics, and most are also developing other policies and structures that encourage ethical conduct. Organizations get into trouble when they fail to pay attention to ethical issues in the blind pursuit of making money. In recent years, numerous companies, including Archer-Daniel-Midland, Baker & Taylor Books, Prudential Insurance, and Columbia/HCA, have been charged with serious breaches of ethical or legal standards and the problem is not limited to US companies, to joint pharmaceutical companies, Hoffman-LaRoche, a Swiss firm, and Germany's BASF-AG, recently pleaded guilty to charges that they polluted to race and fix the prices of vitamins used in virtually every American home and edit to bread, milk, and breakfast cereal for their role in the conspiracy, BASG-AG will pay off $225 million fine, and Hoffman-Laroche will pay $500 million, the largest federal criminal fine, ever imposed over a company.

On the other hand, a growing no of companies are demonstrating their commitments to high standards of ethics and social responsibilities. Marriott corporation tries to help build healthy community to its" pathways to independence program," which target welfare recipients. Programs candidates go through dozens of hours of rigorous training "Graduates" to a job in the company. Micro boar processing inc. frequently high-risk workers, from welfare recipients to felons and farmer drug addicts, based on the belief that the every one deserves a chance to turn their lives around. The gap's community action program allows headquarters employees to take paid time of to become involved in volunteer activates.

ORGANIZATIONS

WHAT IS AN ORGANIZATION?
Organizations are hard to see. We see outcroppings, such as a tall building or a computer workstations or a friendly employee; but the whole organization is vague and abstract and may be scattered among several locations. We know organizations are there because they touch us every day. Indeed, they are so common that we take them for granted. We hardly notice that we are born in a hospital, have our birth records registered in a government agency, are educated in schools and universities, are raised on food produced on corporate farms, are treated by doctors engages in a joint practice, buy a house built by a construction company and sold by a real estate agency, borrow money from a bank, turn to police and fire department when trouble erupts, use moving companies to change residences, receive an array of benefits from government agencies, spend forty hours a week working in an organization, and are even laid to rest by an undertaker.

Definition
Organizations as diverse as a church, a hospital, and IBM have characteristics in common. The definition used in this course to describe organizations is as follows: **organizations** are (1) social entities that (2) are goal directed (3) are designed as deliberately structured and coordinator activity systems, and (4) are linked to the external environment.

The key element of an organizations not a building or a set of policies and procedures; organizations are made up of people and their relationship with one another. An organization exists when people interact with one another to perform essential functions that help attain goals. Recent trends in management recognize the importance of human resources, with most new approaches designed to empower employees with greater opportunities to learn and contribute as they work together toward common goals. Mangers deliberately structure and coordinate organization resources to achieve the organization's purpose. However, even though work may be structured into separate departments or sets of activities, most organization today are striving for greater horizontal coordination of work activities, often using teams of employees from different functional area to work together on projects. Boundaries between departments as well as those between organizations are becoming more flexible and diffuse as companies face the need respond to changes in the external environment more rapidly. An organization cannot exist without interacting with customers, suppliers, competitors, and other elements of the external environment. Today, some companies are even cooperating with their competitors, sharing information and technology to their mutual advantage.

IMPORTANCE OF ORGANIZATIONS
It may seem hard to believe today, but "organizations" as we know them are relatively recent in the history of humankind. Even in the late 19th century there were few organizations of any size or importance. No labor unions, no trade associations, few large business, non-profit organizations or governmental departments. What a change has occurred since then! The Industrial Revolution and the development of large organizations transformed all of society. Gradually, organizations become central to people's lives and today they exert a tremendous influence in our society.

Organizations are all around us and shape our lives in many ways. But what contributions do organizations make? Why are they important? Following are some reasons:

1.   Bring together resources to achieve desired goals and outcomes
2.   Produce goods and services efficiently
3.   Facilitate innovation
4.   Use modern manufacturing and computer-based technology
5.   Adapt to and influence a changing environment
6.   create value for owners, customers and employees
7.   Accommodate ongoing challenges of diversity, ethics, and the motivation and coordination of employees.

Seven reasons organizations are important to you and to the society. First, Organization brings together resources to accomplish specific goals. Consider MaMaMedia Inc. (www.mamamedia.com), founded by Irit Harel. To accomplish the goals of providing an entertaining children's website based on the education research of the legendary MIT Media Lab, Harel had to raise more than $11 million; negotiate alliances with partners such as scholastic, Inc., Netscape Communications, America Online , and General Mills; recruit quality employees who believed in the theory that interactive play promotes learning; develop activities that promote constructive creativity; and line up advertisers and sponsors for the site.

Organizations also produce goods and services that customers want at competitive prices. Companies look for innovative ways to produce and distribute goods and services more efficiently. One ways is through e-commerce, as discussed earlier, and through the use of computer-based manufacturing technologies. Residing organizational structures and management practices can also contribute to increased efficiency. Organizations create a drive for innovation rather than a reliance on standard products and outmoded ways of doing things. The trend toward the learning organization reflects the desire to improve in all areas; Computer-aided design and manufacturing and new information technology also help promote innovation.

Organization adapts to and influences a rapidly changing environment. Some large companies have entire department's charges with monitoring the external environment and finding ways to adapt to or influence that environment. One of the most significant changes in the external environment today is globalization. Organizations such as Coca-Cola, AES Corporation, Heineeken Breweriesm and Xerox are involved in strategic alliances and partnership with companies around the world in an effort to influence the environment and compete on at global scale.

Through all of these activities, organization creates value for their owners, customers, and employees. Managers need to understand which part of the operation create value and which part do not; a company can be profitable only when the value it creates is greater than the cost of resources, McDonald's made a through study of how to use its core competences to create better value for customers. The study resulted in the introduction of Extra Value Meals and the decision to open restaurants in different locations, such as inside Wal-Mar and Seer Stores.[22] Finally, organizations have to cope with and accommodate today's' challenge of workforce diversity and growing concerns over ethics and social responsibility, as well as find effective ways to motivate employees to work together to accomplish organization goals.

Organizations shape our lives, and well-informed managers can shape organization. An understanding of organization theory enables managers to design organizations to functions more effectively.

DIMESNIONS OF ORGANIZATION DESIGN

The system view pertains to dynamic, ongoing activities within organizations. The next step for understanding organizations is to look at dimensions that describe specific organizational design traits. These dimensions describe organizations much the same way that personality and physical traits describe people.

Organizational dimensions fall into two types: structural and contextual, **Structural dimensions** provide labels to describe the internal characteristics of an organization. They create a basis for measuring and comparing organizations. **Contextual dimensions,** characterize the whole organizations, including its size, technology, environment, and goals. They describe the organizational setting that influences and shapes the structural dimensions. Contextual dimensions can be confusing because they represent both the organization and the environment. Contextual dimensions can be envisioned as a set of overlapping elements that underlie an organization. One must examine both structural and contextual dimensions. These dimensions of organization design interact with one another and can be adjusted to accomplish the purposes listed earlier.

STRUCTURAL DIMENSIONS
1. **Formalization** pertains to the amount of written documentation in the organization. Documentation includes procedures, job descriptions, regulations, and policy manuals. These written documents describe behavior and activities. Formalization is often measured by simply counting the number of pages of documentations within the organization. Large state universities, for example, tend to be high on formulation because they have several volumes of written rules for such things as registration, dropping and adding classes, student associations, dormitory governance, and financial assistance. A small, family-owned business, in contrast, may have almost no written rules and would be considered informal.
2. **Specialization** is the degree to which organizational tasks are subdivided into separate job. If specialization is extensive, each employee performs only a narrow range. Of tasks if specialization is sometime referred to as the division of labor.
3. **Hierarchy of authority** describes who reports to whom and the span of control for each manager. The hierarchy is depicted by the vertical lines on an organization chart, as illustrated in Exhibit 1.5. The hierarchy is related to span of control (the number of employees reporting to a supervisor).When spans of control are narrow; the hierarchy tends to be tall. When spans of control are wide, the hierarchy of authority will be shorter.
4. **Centralization** refers to the hierarchical level that has authority to make a decision. When decision making is kept at the top level, the organization is centralized. When decisions are delegated to lower organizational levels, it is decentralized. Organizational decisions that might be centralized or decentralized include purchasing equipment, establishing goals, and choosing suppliers, setting prices hiring employees, and deciding marketing territories.
5. **Professionalism** is the level of formal education and training of employees. Professionalism is considered high when employees require long periods of training to hold jobs in the organization. Professionalism is generally measured as the average number of years of education of employees, which could be as high as twenty in a medical practice and less than ten in a construction company.
6. **Personnel ratios** refer to the deployment of people to various functions and departments. Personnel ratios include the administrative ratio, the clerical ratio, the professional staff ratio, and the ration of indirect to direct labor employees. A personnel ration is measured by dividing the number of employees in a classification by the total number of organizational employees.

CONTEXTUAL DIMENSIONS

1.   **Size** is the organization's magnitude as reflected in the number of people in the organization. It can be measured for the organization as a whole or for specific components, such as a plant or division. Because organizations are social systems, size is typically measured by the number of employees. Other measures such as total sales or total assets also reflect magnitude, but they do not indicate the size of the human part of the social system.
2.   **Organizational technology** refers to the tools, techniques, and actions used to transform inputs into outputs. It concerns how the organization actually produces the products and services it provides for customers and includes such things as computer-aided manufacturing advanced information systems, and the internet. An automobile assembly line, a college classroom, and an overnight package delivery system are technologies, although they differ from one another.

3.   **The environment** includes all elements outside the boundary of the organization. Key elements include the industry, government, customer, supplies, and the financial community. Environmental elements that affect and organization the most are often other organizations.

4.   **The organization's goals and strategy** define the purpose and competitive techniques that set it apart from other organizations. Goals are often written down as an enduring statement of company intent. A strategy is the plan of action that describes resource allocation and activities for dealing with the environment and for reaching the organization's goals. Goals and strategies define the scope of operations and the relationship with employees, customers, and competitors.

5.   **An organization's culture** is the underlying set of key values, beliefs, understandings, and norms shared by employees. These underlying values may pertain to ethical behavior, commitment to employees, efficiency or customer services, and they provide the glue to hold organization members together. An organization's culture is unwritten but can be observed in its stories, slogans, ceremonies, dress, and office layout.

The eleven contextual and structural dimensions discussed here are interdependent. For Example, large organization size, a routine technology, and a stable environment all tend to create an organization that has greater formalization, specialization, and centralization.

These dimensions provide a basis for the measurement and analysis of characteristics that cannot be seen by the casual observer, and they reveal significant information about an organization. Consider, for example, the dimensions of W.L. Gore & Associates compared with those of Wal-Mart and a governmental agency.

ORGANIZATIONAL PURPOSE

Primary responsibility of top management is to determine an organization's goals, strategy, and design, therein adapting the organization to a changing environment. Organization design is the administration and execution of the strategic plan. This is the area where role of organization theory comes in.

Process of Strategic Management
- Goals/objectives:
- Must be SMART
- Vision
- Mission
- External environmental assessment:
- Opportunities and Threats
- Resources availability
- Internal environmental assessment:
- Strengths and Weaknesses
- Distinctive or core competencies
- Leadership style
- Past performance
- Matching of the two assessments
- Generation of strategies
  – Internal and External Environment
  – SWOT Analysis
  – Capability
  – Strength threat (ST), strength opportunity (SO) etc.
- Selection of strategies
- Implementation
- Problems in implementation

Strategic Management
- Difference between goals and strategies
- e.g. 15% annual sales growth, through advertising
- Motivated sales force
- Two models of formulating strateg**ies:**
- Porter' model
- Miles and Snow model

Porter's Competitive Strategies
- Differentiation
- Low-cost leadership
- Focus

How companies decide the strategy
- Strategy and structure

HOW STRATEGIES AFFECT ORGANIZATION DESIGN
Choice of strategy affects internal organization characteristics. Organization design characteristics need to support the firm's competitive approach. For example, a company wanting to grow and invent new products looks and "feels" different from a company that is focused on maintaining market share for long-established products in a stable industry.

With a low – cost leadership strategy, managers take an efficiency approach to organization design, whereas a differentiation strategy calls for a learning approach. A low-cost leadership strategy (efficiency) is associated with strong, centralized authority and tight control, standard operating procedures, and emphasis on efficient procurement and distribution system. Employees generally perform routine tasks under close supervision and control and are not empowered to make decisions or take action on their own. A differentiation strategy, on the other hand, requires that employees be constantly experimenting and learning. Structure is fluid and flexible, with

strong horizontal coordination. Empowered employees work directly with customers and are rewarded for creativity and risk – taking. The organization values research, creativity, and innovativeness over efficiency and standard procedures.

The prospector strategy requires characteristics similar to a differentiation strategy, and the defender strategy takes an efficiency approach similar to low-cost leadership. Because the analyzer strategy attempts to balance efficiency for stable product lines with flexibility and learning for new products, it is associated with a mix of characteristics. With a reactor strategy; managers have left the organization with no direction and no clear approach to design.

OTHER FACTORS AFFECTING ORGANIZATION DESIGN

Strategy is one important factor that affects organization design, ultimately, how ever; organization design is a result of numerous contingencies. The emphasis given to efficiency and control versus learning and flexibility is determined by the contingencies of strategy, environment, size and life cycle, technology, and organizational culture. The organization is designed to "fit the contingency factors.

For example, in a stable environment, the organization can have a traditional structure that emphasizes vertical control, efficiency, specialization, standard procedures, and centralized decision making.

However a rapidly changing environment may call for a more flexible structure, with strong horizontal coordination and collaboration through teams or other mechanisms. In terms of size and life cycle, young, small organizations are generally informal and have little division of labor, few rules and regulations, and ad hoc budgeting and performance systems. Large organizations such as IBM or Sears, on the other hand, have an extensive division of labor, numerous rules and regulations, and standard procedures and systems for budgeting, control, rewards, and innovation.

Design must also fit the workflow technology of the organization. For example, with mass production technology, such as a traditional automobile assembly line, the organization functions best by emphasizing efficiency, formalization, specialization, centralized decision making, and tight control. An e-business, on the other hand, may need to be very informal and flexible. A final contingency that affects organizational design is corporate culture. An organizational culture that values teamwork, collaboration, creativity, and open communication among all employees and managers, for example, would not function well with a tight, vertical structure and strict rules and regulations.

One responsibility of managers is to design organizations that fit the contingency factors of strategy, environment, size and life cycle, technology, and culture. Finding the right "fit" leads to organizational effectiveness, whereas a poor fit can lead to decline or even the demise of the organization.

MILES AND SNOW'S STRATEGY TYPOLOGY

Another business strategy typology was developed from the study of business strategies by Raymond Miles and Charles Snow. The Miles and Snow typology is based on the idea that managers seek to formulate strategies that will be congruent with the external environment. Organizations strive for a fit among internal organization characteristics, strategy, and the external environment. The four strategies that can be developed are the prospector, the defender, the analyzer, and the reactor.

Prospector: The prospector strategy is to innovate, take risks, seek out new opportunities, and grow. This strategy is suited to a dynamic, growing environment, where creativity is more important than efficiency. Federal Express Corporation, which innovates in both services and production technology in the rapidly changing overnight mail industry, exemplifies the prospector strategy, as do today's leading high-tech companies, such as Microsoft or AOL.

Defender: The defender strategy is almost the opposite of the prospector. Rather than taking risks and seeking out new opportunities, the defender strategy is concerned with stability or even retrenchment. This strategy seeks to hold onto current customers, but it neither innovates nor seeks to grow. The defender is concerned primarily with internal efficiency and control to produce reliable, high-quality products for steady customers. This strategy can be successful when the organization exists in a declining industry or a stable environment. Philips Electronics used a defender strategy after $ 2.2 billion loss nearly bankrupted the company. Philips managers began dramatic cost-cutting efforts, including eliminating thousands of jobs and selling off dozens of business.

Analyzer: The analyzer tries to maintain a stable business while innovating on the periphery. It seems to lie midway between the prospector and the defender. Some products will be targeted toward stable environments in which an efficiency strategy designed to keep current customers is used. Others will be targeted toward new, more dynamic environments, where growth is possible. The analyzer attempts to balance efficient production for current product lines with the creative development of new product lines. Procter & Gamble has shifted to an analyzer strategy under new CEO Durk Jager. His strategy is to maintain a stable business for strong brands such as Tide, Crest, and Pampers, while also pushing the company to invent entirely new categories of products, such as a home dry cleaning product called Dryel

Reactor: The reactor strategy is not really a strategy at all. Rather, reactors respond to environmental threats and opportunities in an ad hoc fashion. In a reactor strategy, top management has not defined a long-range plan or given the organization an explicit mission or goals, so the organization take whatever actions seem to meet immediate needs. Although the reactor strategy can sometimes be successful, it can also lead to failed companies. Some large, once highly successful companies, such as Kellogg and Kodak, are struggling because managers failed to adopt a strategy consistent with consumer trends.

HOW STRATEGIES AFFECT ORGANIZATION DESIGN
Choice of strategy affects internal organization characteristics. Organization design characteristics need to support the firm's competitive approach. For example, a company wanting to grow and invent new products looks and "feels" different from a company that is focused on maintaining market share for long-established products in a stable industry.
With a low – cost leadership strategy, managers take an efficiency approach to organization design, whereas a differentiation strategy calls for a learning approach. Organizations designed for efficiency have different characteristics from those designed for learning. A low-cost leadership strategy (efficiency) is associated with strong, centralized authority and tight control, standard operating procedures, and emphasis on efficient procurement and distribution system. Employees generally perform routine tasks under close supervision and control and are not empowered to make decisions or take action on their own. A differentiation strategy, on the other hand, requires that employees be constantly experimenting and learning. Structure is fluid and flexible, with strong horizontal coordination. Empowered employees work directly with customers and are rewarded for creativity and risk – taking. The organization values research, creativity, and innovativeness over efficiency and standard procedures.
The prospector strategy requires characteristics similar to a differentiation strategy, and the defender strategy takes an efficiency approach similar to low-cost leadership. Because the analyzer strategy attempts to balance efficiency for stable product lines with flexibility and learning for new products, it is associated with a mix of characteristics. With a reactor strategy; managers have left the organization with no direction and no clear approach to design.

OTHER FACTORS AFFECTING ORGANIZATION DESIGN

Strategy is one important factor that affects organization design, ultimately, how ever; organization design is a result of numerous contingencies. The emphasis given to efficiency and control versus learning and flexibility is determined by the contingencies of strategy, environment, size and life cycle, technology, and organizational culture. The organization is designed to "fit the contingency factors.

For example, in a stable environment, the organization can have a traditional structure that emphasizes vertical control, efficiency, specialization, standard procedures, and centralized decision making. However a rapidly changing environment may call for a more flexible structure, with strong horizontal coordination and collaboration through teams or other mechanisms. In terms of size and life cycle, young, small organizations are generally informal and have little division of labor, few rules and regulations, and ad hoc budgeting and performance systems. Large organizations such as IBM or Sears, on the other hand, have an extensive division of labor, numerous rules and regulations, and standard procedures and systems for budgeting, control, rewards, and innovation.

Design must also fit the workflow technology of the organization. For example, with mass production technology, such as a traditional automobile assembly line, the organization functions best by emphasizing efficiency, formalization, specialization, centralized decision making, and tight control. An e-business, on the other hand, may need to be very informal and flexible. A final contingency that affects organizational design is corporate culture. An organizational culture that values teamwork, collaboration, creativity, and open communication among all employees and managers, for example, would not function well with a tight, vertical structure and strict rules and regulations. One responsibility of managers is to design organizations that fit the contingency factors of strategy, environment, size and life cycle, technology, and culture. Finding the right "fit" leads to organizational effectiveness, whereas a poor fit can lead to decline or even the demise of the organization.

MISSION & GOALS

TOP MANAGEMENT STRATEGIC DIRECTION

An organization is created and designed to achieve some end, which is decided by the chief executive officer and / or the top management team. Organization structure and design is an outcome of this purpose, indeed, the primary responsibility of top management is to determine an organization's goals, strategy, and design, therein adapting the organization to a changing environment. Middle managers do much the same thing for major departments within top managers provide direction and then design.

The direction-setting process typically begins with an assessment of the opportunities and threats in the external environment, including the amount of change, uncertainty, and resource availability, which we discuss in more detail later on. Top management also assesses internal strengths and weaknesses to define the company's distinctive competence compared with other firms in the industry. The assessment of internal environment often includes an evaluation of each department and is shaped by past performance and the leadership style of the CEO and the top management team. The next step is to define overall mission and official goals based on the correct fit between external opportunities and internal strengths. Specific operational goals or strategies can then be formulated to define how the organization is to accomplish its overall mission.

Organization design reflects the way goals and strategies are implemented. Organization design is the administration and execution of the strategic plan. This is the role of organization theory. Organization direction is achieved through decisions about structural form, including whether the organization will be designed for a learning or an efficiency orientation as well as choices about information and control systems, the type of production technology, human resource policies, culture, and linkages to other organization Changes in structure, technology, human resource policies, culture, and inter-organization linkages will be discussed in subsequent lectures. Strategies are often made within the current structure of the organization, so that current design constrains or puts limits on goals and strategy. More often than not, however, the new goals and strategy are selected based on environmental needs, and then top management attempts to redesign the organization to achieve those ends.

The role of top management is important because managers can interpret the environment differently and develop different goals. For example, as head of Sears Merchandise Group, Arthur Martinez (now CEO of Sears) turned a dinosaur into a cash cow by setting a goal to be the store of choice for today's " middle –American mom," rather than focusing on male –oriented business such as hardware, tools, and automotive, as the previous management had done.

He also scrapped the revered sears catalog, which previous leaders had considered the heart and soul of the retailers, redesigned stores and packed them with women's apparel and cosmetics, and began advertising "the softer side of Sears." The choices top managers make about goals, strategies, and organization design have a tremendous impact on organizational effectiveness.

Remember that goals and strategy are not fixed or taken for granted. Top managers and middle managers must select goals for their respective units, and the ability to make these choices largely determines firm success. Organization design is used to implement goals and strategy and also determines organization success

ORGANIZATIONAL PURPOSE:
Organizations are created and continued in order to accomplish something. All organizations, including Sears, the American Red Cross, IBM, the Methodist Church, the U.S. Department of Agriculture, and the local video rental store, exist for purpose. This purpose may be referred to as the overall goal, or mission. Different parts of the organization establish their own goals and objectives to help meet the overall goal, mission, or purpose of the organization.

Many types of goals exist in an organization, and each type performs a different function. One major distinction is between the officially stated goals or mission of the organization and the operative goals the organization actually pursues.

MISSION
The overall goal for an organization is often called the mission – the organization's reason for existence. The mission describes the organization's vision, its shared values and beliefs, and its reason for being. It can have a powerful impact on an organization. The mission is sometimes called the official goals, which are the formally

stated definition of business scope and outcomes the organization is trying to achieve. Official goal statements typically define business operations and may focus on values, markets, and customers that distinguish the organization. Whether called a mission statement or official goals, the organization's general statement of its purpose and philosophy is often written down in a policy manual or the annual report. The mission statement for Hallmark is shown in Exhibit 2.2. Note how the overall mission, values, and goals are all defined.

OPERATIVE GOALS

Operative goals designate the ends sought through the actual operating procedures of the organization and explain what the organization is actually trying to do. Operative goals describe specific measurable outcomes and are often concerned with the short run. Operative versus official goals represent actual versus stated goals. Operative goals typically pertain to the primary tasks an organization must perform, similar to the subsystem activities identified earlier. These goals concern overall performance, boundary spanning, and maintenance, adaptation and production activities. Specific goals for each primary task provide direction for the day – to day decisions and activities within departments.

Overall Performance: Profitability reflects the overall performance of for-profit or organizations. Profitability may be expressed in terms of net income, earnings per share, or return on investment. Other overall goals are growth and output volume. Growth pertains to increases in sales or profits overtime. Volume pertains to total sales or the amount of products or services delivered. Executives at Procter & Gamble have set a growth goal to double consumer – products sales to $ 70 billion by 2006.
Not–for–profit organizations such as labor unions do not have goals of profitability, but they do have goals that attempt to specify the delivery of services to members within specified budget expense levels. Growth and volume goals also may be indicators of overall performance in not – for – profit organizations.

Resources: Resource goals pertain to the acquisition of needed material and financial resources from the environment. They may involve obtaining financing for the construction of new plants finding less expensive sources for raw materials, or hiring top –quality college graduates. Many high – tech companies re having trouble hiring well- educated, computer – literate knowledge workers because of today's labor market. Companies such as Sun Microsystems are investing heavily in online recruiting programs to help them meet their resource goals in this area.

Market: Market goals relate to the market share or market standing desired by the organization. Market goals are the responsibility of marketing, sales, and advertising departments. An example of a market goal is Cisco Systems' desire to be the leading maker of switches and other gear that keep the internet running. Cisco has captured 80 percent of the market for Internet high – end routers. Cemex has 60 percent of the market for cement in Mexico and it's the leading supplier in several emerging markets. Both companies have an operative goal of having the largest market share in a specific industry.

Employee Development: Employee development pertains to the training, promotion, safety, and growth of employees. It includes both managers and workers. At Fetzer Vineyards, a primary goal is to contribute to the continuous growth and development of employees. The goal includes providing a comprehensive employee education program, with classes such as English as a second language, decision making, and communication. According to Barbara Wallace, Fetzer's director of human resource, "…our company feels that developing people's capabilities strengthens the organization. It's way of crating loyalty."

Innovation and Change: Innovation goals pertain to internal flexibility and readiness to adapt to unexpected changes in the environment. Innovation goals are often defined with respect tot the development of specific new services, products, or production process. For example, 3M has a goal of generating enough new products so that 30 percent of sales come from products introduced within the past four years.

Productivity: Productivity goals concern the amount of output achieved from available resources. They typically describe the amount of resource inputs required to reach desired outputs and are thus stated in terms of "cost for a unit of production," "units produced per employee," or resource cost per employee." For example, Rubbermaid set a productivity goal of increasing the number of units produced per worker per day. Total output increased from three hundred units per worker per day in 1952 to five hundred units in 1980 and 750 in 1988. Another productivity goal was to reduce the number of sales representatives and to increase the work force by only 50 percent while doubling sales. The resulting increases in productivity produced fresh profit for Rubbermaid.

Successful organization such as Rubbermaid and 3M use a carefully balanced set of operative goals. For example, although profitability is important, some of today's best companies recognize that a single – minded focus on bottom line profits may not be the best way to achieve high performance. In a rapidly changing environment, innovation and change goals are increasingly important, even though they may initially cause a decrease in profits. Employee development goals are critical for helping to maintain a motivated, committed work force in a tight labor market.

THE IMPORTANCE OF GOALS

Both official goals and operative goals are important for the organization, but they serve very different purposes. Official goals provide legitimacy; operative goals provide employee direction, decision guidelines, and criteria of performance.

Legitimacy: A mission statement (or official goals) communicates legitimacy to external and internal stakeholders. The mission describes the purpose of the organization so people know what it stands for and accept its existence. Moreover, employees join and become committed to an organization when they identify with the organization's stated goals.

Most top managers want their company to look good to other companies in their environment. Managers want customers, competitors, suppliers, and the local community to look on them in a favorable light. The dynamics of a company's interaction with the organizational environment often depend as much on cultural norms. Symbols and beliefs as on technological or material factors; and

Goal type and purpose

Type of goals	Purpose of Goals
Official goals, mission	Legitimacy
Operative goals	Employee direction and motivation Decision guidelines Standard of performance

The concept of organizational legitimacy plays a critical role. The mission statement is a powerful first step in communicating legitimacy to external and internal stakeholders and creating a positive impression.

Fortune magazine reflects the corporate concern for legitimacy with ratings of the reputations of corporations in a number of industries. In 1999, both Dell Computer Corp. and Wal-Mart entered the overall top ten, largely because of their strong commitment to customer service and obsession with operational efficiency. Companies such as Dell and Wal-Mart use mission and goal statements to help communicate their commitment to these core values. As another example, a national tabloid newspaper in Norway was severely criticized for offering sexually explicit dial – up message services. These lucrative services were canceled because managers determined that they were detrimental to the company's goal of serving as a respected national news medium.

Employee Direction and Motivation: Goals give a sense of direction to organization participants. The stated end towards which an organization is striving and strategies for how to get there tell employees what they are working for. Goals help motivate participants, especially if participants help select the goals. For example, teams of workers at SOL Cleaning, described in Taking the Lead, set – and meet-goals that are much more ambitious than those top management would have set for them.

Decision Guidelines: The goals of an organization also act as guidelines for employee decision making. Organizational goals are a set of constraints on individual behavior and decisions. They help define the correct decisions concerning organization structure, innovation, employee welfare, or growth. When Owens–Illinois, a glass container manufacturer, established the goal of reducing volume to improve profits, internal decisions were redirected. Owens – Illinois had been running marginal plants just to maintain volume. The new goal of increased profits provided decision guidelines that led to the closing of these marginal plants.

Criteria of Performance: Goals provide a standard for assessment. The level of organization performance, whether in terms of profits, units produced, or number of complaints, needs a basis for evaluation. Is a profit of 10 percent on sales good enough? The answer lies in goals. Goals reflect past experience and describe the desired state for the future. If the profit goal is 8 percent, then a 10 percent return is excellent. When Owens – Illinois shifted

from volume to profit goals, profit increased by 30 percent. This increase occurred during the period when two competitors reported profit declines of 61 percent and 76 percent. Profit thus replaced production volume as the criterion of performance.

ORGANIZATIONAL EFFECTIVENESS

Understanding organizational goals and strategies, as well as the concept of fitting design to various contingencies, is a first step toward understanding organizational effectiveness. Organizational goals represent the reason for an organization's existence and the outcomes it seeks to achieve. The next few sections of the lecture explore the topic of effectiveness and how effectiveness is measured in organizations.

Goals were defined earlier as the desired future state of the organization. Organizational effectiveness is the degree to which an organization realizes its goals. Effectiveness is a broad concept; it implicitly takes into consideration a range of variables at both the organizational and departmental levels. Effectiveness evaluates the extent to which multiple goals--- whether official or operative – are attained.

Efficiency is a more limited concept that pertains to the internal workings of the organization. Organizational efficiency is the amount of resources used to produce a unit of output. It can e measured as the ratio of inputs to outputs, if one organization can achieve a given production level with fewer resources than another organization it would be described as more efficient.

Sometimes efficiency leads to effectiveness. In other organizations, efficiency and effectiveness are not related. An organization may be highly efficient but fail to achieve its goals because it makes a product for which there is no demand. Likewise, an organization may achieve its profit goals but be inefficient.

Overall effectiveness is difficult to measure in organizations. Organizations are large, diverse, and diverse, and fragmented. They perform many activities simultaneously. They pursue multiple goals. And they generate many outcomes, some intended and some unintended. Managers determine what indicators to measure in order to gauge the effectiveness of their organization. One study found that many managers have a difficult time with the concept of evaluating effectiveness based on characteristics that are not subject to hard, quantitative measurement. However, top executives at some of today's leading companies are finding new ways to measure effectiveness, using indicators such as "customer delight" and employee satisfaction. A number of approaches to measuring effectiveness look at which measurements managers choose to track. These contingency effectiveness approaches, discussed in the next section, are based on looking at which part of the organization managers consider most important to measure. Later, we will examine balanced effectiveness approaches, which integrate concern for various parts of the organization.

CONTINGENCY EFFECTIVENESS APPROACHES

Contingency approaches to measuring effectiveness focus on different parts of the organization. Organizations bring resources in from the environment, and those resources are transformed into outputs delivered back into the environment. The goal approach to organizational effectiveness is concerned with the output side and whether the organization achieves its goals in terms of desired levels of output. The resources –based approach assesses effectiveness by observing the beginning of the process and evaluating whether the organization effectively obtains resources necessary for high performance. The internal process approach looks at internal activities and assesses effectiveness by indicators of internal health and efficiency.

This section first examines effectiveness as evaluated by the goal approach. Then it turns to the resources-based and internal process approaches to effectiveness. In the following section, we will examine approaches that attempt to balance and integrate these perspectives.

GOAL APPROACH

The goal approach to effectiveness consists of identifying an organization's output goals and assessing how well the organization has attained hose goals. This is a logical approach because organizations do try to attain certain levels of output, profit, or client satisfaction. The goal approach measures progress toward attainment of those goals. For example, an important measure for the women's National Basketball Association is number of tickets sold per game. During the league's first season, President Val Ackerman set a goal of 4,000 to 5,000 tickets per game. The organization actually averaged nearly 9,700 tickets per game, indicating that the WNBA was highly effective in meeting its goal for attendance.

Indicators. The important goals to consider are operative goals. Efforts to measure effectiveness have been more productive using operative goals than using official goals. Official goals tend to be abstract and difficult to measure. Operative goals reflect activities the organization is actually performing.

One Example of multiple goals is from a survey of U.S. business corporations. Their reported goals are shown in Exhibit 2.8. Twelve goals were listed as being important to these companies. These twelve goals represent outcomes that cannot be achieved simultaneously. They illustrate the array of outcomes organizations attempt to achieve.

Usefulness. The goal approach is used in business organizations because output goals can be readily measured. Business firms typically evaluate performance in terms of profitability, growth, market share, and return on investment. However, identifying operative goal and measuring performance of an organization are not always easy. Two problems that must be resolved are the issues of multiple goals and subjective indicators of goal attainment.

Since organizations have multiple and conflicting goals, effectiveness often cannot be assessed by a single indicator, high achievement on one goal may mean low achievement on another. Moreover, there are department goals as well as overall performance goals. The full assessment of effectiveness should take into consideration several goals simultaneously. Many organizations, including Northern states tracks measurements in four goal areas; financial performance, customer service and satisfaction, internal process, and innovation and learning.

The other issue to resolve with the goal approach is how to identify operative goals for an organization and how to measure goal attainment. For business organizations, there are often objective indicators for certain goals, such as profit or growth. However, subjective assessment is needed for other goals, such as employee welfare or social responsibility. Someone has to go into the organization and learn what the actual goals are by taking with the top management teams. Once goals are identified, subjective perceptions of goals attainment have to be used when quantitative indicators are not available; Managers rely on information from customers, competitors, suppliers, and employees, as well as their own intuition, when considering these goals, Jerre Stead, Chairman and CEO of Ingram Micro Inc... The world's largest distributor of computer-technology products and services communicates directly with hundreds of customers each week to measure the company's goal of achieving "customer delight." "These direct interactions don't provide hard numbers," he says," "but I sure do learn a lot," although the goal approach seems to be the most logical way to assess organizational effectiveness, managers and evaluators should keep in mind that the actual measure of effectiveness is complex process. The office of National Drug Control Policy's attempt to set goals and measure results in the U.S. war against drugs illustrates how complex measuring effectiveness can be.

RESOURCE –BASED APPROACH

The resource – based approach looks at the input side of the transformation process. It assumes organizations must be successful in obtaining and managing valued resources in order to be effective. From a resource-based perspective, organizational effectiveness is defined as the ability of the organization, in either absolute or relative terms, to obtain scarce and valued resources and successfully integrate and manage them.

Indicators: Obtaining and successfully managing resources is the criterion by which organizational effectiveness is assessed. In a broad sense, indicators of effectiveness according to the resource-based approach encompass the following dimensions:

- Bargaining position – the ability of the organization to obtain from its environment scarce and valued resources, including financial resources, raw materials, human resources, knowledge, and technology.
- The abilities of the organization's decision makers to perceive and correctly interpret the real properties of the external environment.
- The abilities of managers to use tangible(e.g. suppliers, people) and intangible (e.g. knowledge, corporate culture) resources in day – to day organizational activities to achieve superior performance.
- The ability of the organization to respond to changes in the environment.

Usefulness: The resource based approach is valuable when other indicators of performance are difficult to obtain. In many not-for-profit and social welfare organizations, for example, it is hard to measure output goals or internal efficiency. Some for – profit organizations also use a resource-based approach. For example, Mathsoft, Inc., which provides a road range of technical –calculation and analytical software for business and academia, evaluates its effectiveness partly by looking at how many top –rate Ph.D.s it can recruit. CEO Charles Digate believes Mathsoft has higher ratio of Ph.D.s to total employees than any other software company, which directly affects product quality and the company's image.

Al though the resource –based approach is valuable when other measures of effectiveness are not available, it does have shortcomings. For one thing, the approach only vaguely considers the organization's link to the needs of customers in the external environment. A superior ability to acquire and use resources is important only if resources and capabilities are used to achieve something that meets a need in the environment. The resource – based approach is most valuable when measures of goal attainment cannot be readily obtained.

INTERNAL PROCESS APPROACH

In the internal process approach, effectiveness is measured as internal organizational health and efficiency. An effective organization has a smooth, well – oiled internal process. Employees are happy and satisfied. Departmental activities mesh with one another to ensure high productivity. This approach does not consider the external environment. The important element in effectiveness is what the organization does with the resources it has, as reflected in internal health and efficiency.

Indicators: One indicator of internal process effectiveness is the organization's economic efficiency. However, the best – known proponents of a process model are from the human relations approach to organization. Such writers as Chris Argyris, Warren G. Bennis, Rensis Likert, and Richard Beckhard have all worked extensively with human resources in organizations and emphasize the connection between human resources and effectiveness. Writers on corporate culture and organizational excellence have stressed the importance of internal processes. Results from a recent study of nearly two hundred secondary school showed that both human resources an employee – oriented processes were important in explaining and promoting effectiveness in those organizations.

There are seven indicators of an effective organization as seen from an internal process approach:
- Strong corporate culture and positive work climate
- Team spirit, group loyalty , and team work
- Confidence, trust, and communication between workers an management
  - Decision making near sources of information, regardless of where those sources are on the organizational chart.
- Undistorted horizontal and vertical communication: sharing of relevant facts and feelings
- Rewards to mangers for performance, growth, and development of subordinates and for creating an effective working group
- Interaction between the organization and its parts, with conflict that occurs over projects resolved in the interest of the organization.

Usefulness: The internal process approach is important because the efficient use of resources and harmonious internal functioning are ways to measure effectiveness. Today most managers believe that happy, committed, actively involved employees and positive corporate culture are important measures of effectiveness. Gary White, CEO of the Gymboree Corp., for example, believes that keeping employees happy is the key to long – term success for his company, which runs parent –child play programs and operates more than 500 retail clothing stores.
The internal process approach also has shortcomings. Total output and the organization's relationship with the external environment are not evaluated. Also, evaluations of internal health and functioning are often subjective, because many aspects of inputs and internal processes are not quantifiable. Managers should be aware that this approach alone represents a limited view of organizational effectiveness.

BALANCED EFFECTIVENESS APPROACHES

The three approaches – goal, resources – based, internal process – to organizational effectiveness described earlier all have something to offer, but each one tells only part of the story. Some approaches try to balance a concern with various parts of the organization rather than focusing on one part. These integrative, balanced approaches to effectiveness acknowledge that organization do many things and have many outcomes. These approaches combine several indictors of effectiveness into a single framework. They include the stakeholder and competing values approaches.

STAKEHOLDER APPROACH

One proposed approach integrates diverse organizational activities by focusing on organizational stakeholders. A stakeholder is any group within or outside an organization that has a stake in the organization's performance, Creditors, suppliers, employees, and owner are all stakeholders. In the stakeholder approach (also called the constituency approach), the satisfaction of such groups can b assessed as an indicator of the organization's performance. Each stakeholder will have a different criterion of effectiveness because it has a different interest in the organization. Each stakeholder group has to be surveyed to learn whether the organization performs well from its view point.

Indicators: the initial work on evaluating effectiveness on the basis of stakeholders included ninety –seven small businesses in Texas. Seven stakeholder groups relevant to those businesses were surveyed to determine the perception of effectiveness from each viewpoint. The following table shows each stakeholder and its criterion of effectiveness.

	Stakeholder	Effectiveness Criteria
1.	Owners	Financial return
2.	Employees	Worker satisfaction, pay, supervision
3.	Customers	Quality of goods and services
4.	Creditors	Creditworthiness
5.	Community	Contribution to community affairs
6.	Suppliers	Satisfactory transactions
7.	Government	Obedience to laws, regulations

ORGANIZATION STRUCTURE

The three key components in the definition of organization structure are:

1.   Organization structure designates formal reporting relationships, including the number of levels in the hierarchy and the span of control of managers and supervisors.
2.   Organization structure identifies the grouping together of individuals into departments and of departments into the total organization.
3.   Organization structure includes the design of systems to ensure effective communication, coordination, and integration of effort across departments.

These three elements of structure pertain to both vertical and horizontal aspects of organizing. For example, the first two elements are the structural framework, which is the vertical hierarchy. The third element pertains to the pattern of interactions among organizational employees. An ideal structure encourages employees to provide horizontal information and coordination where and when it is needed.

Organization structure is reflected in the organization chart, it isn't possible to "see" the internal structure of an organization the way w might see its manufacturing tools, offices, or products. Although we might see employees going about their duties, performing different tasks, and working in different locations, the only way to actually see the structure underlying all this activity is through the organization chart. The organization chart is the visual representation of a whole set of underlying activities and processes in an organization. Exhibit 3.1 shows a sample organization chart. The organization chart can be quite useful in understanding how a company works. It shows the various parts of an organization, how they are interrelated, and how each position and departments fits into the whole.

The concept of an organization chart, showing what positions exist, how they are grouped, and who reports to whom, has been around for centuries. For example, diagrams outlining church hierarchy can be found in medieval churches in Spain. However, the use of the organization chart for business stems largely from the industrial Revolution. As we discussed earlier as work grew more complex and was performed by greater and greater numbers of workers, there was a pressing need to develop ways of managing and controlling organizations. The growth of the railroads provides an example. After the collision of two passenger trains in Massachusetts in 1841, the public demanded better control of the operation. As a result, the board of directors of the Western Railroad took steps to outline "definite responsibilities for each phase of the company's business, drawing solid lines of authority and command for the railroad's administration, maintenance, and operation.

The type of organization structure that grew out of these efforts in the late nineteenth and early twentieth centuries was one in which the CEO was placed at the top and everyone else was arranged in layers down below. The thinking and decision making is done by those at the top, and the physical work is performed by employees who are organized into distinct, functional departments. This structure was quite effective and became entrenched in the business world for most of the twentieth century. However, this type of vertical structure is not always effective, particularly in rapidly changing environments. Over the years, organization have developed other structural designs, many of them aimed at increasing horizontal coordination and communication and encouraging adaptation to external changes.

INFORMATION – PROCESSING PERSPECTIVE ON STRUCTURE
The organization should be designed to provide both vertical and horizontal information flow as necessary to accomplish the organization's overall goals. If the structure doesn't fit the information requirements of the organization, people will have either too little information or will spend time processing information that is not vital to their tasks, thus reducing effectiveness. However there is an inherent tension between vertical and horizontal mechanisms in an organization. Whereas vertical linkages are designed primarily for control, horizontal linkages are deigned for coordination and collaboration, which usually means reducing control.

Organizations can choose whether to orient toward a traditional organization designed for efficiency, which emphasizes vertical communication and control, or toward a contemporary learning organization, which emphasizes horizontal communication and coordination. An emphasis on efficiency and control is associated with specialized tasks, hierarchy of authority, rules and regulations, for mal reporting systems, few teams or task forces, and centralized decision making. Emphasis on learning is associated with shared tasks, relaxed hierarchy and few rules, face to face communication, many teams and task forces, and informal, decentralized decision making. All

organizations need a mix of vertical and horizontal linkages. Managers have to find the right balance to fit the organization's needs.

VERTICAL INFORMATION LINKAGES

Organization design should facilitate the communication among employees and departments that is necessary to accomplish the organization's overall task. Linkage is defined as the extent of communication and coordination among organizational elements. Vertical linkages are used to coordinate activities between the top and bottom of an organization and are designed primarily for control of the organization. Employees at lower levels should carry out activities consistent with top-level goals, and top executives must be informed of activities and accomplishments at the lower levels. Organizations may use any of a variety of structural devices to achieve vertical linkage, including hierarchical referral, rules, plans, and formal management information systems.

Hierarchical Referral: The first vertical device is the hierarchy, or chain of command, if a problem arises that employees don't know how to solve, it can be referred up to the next level in the hierarchy. When the problem is solved, the answer is passed back down to lower levels. The lines of the organization chart act as communication channels.

Rules and plans: The next linkage device is the use of rules and plans. To the extent that problems and decisions are repetitious, a rule or procedure can bb established to employees know how to respond without communicating directly with their manger. Rules provide a standard information source enabling employees to be coordinated without actually communicating about every job. A plan also provides standing information for employees. The most widely used plan is the budget. With carefully designed budget plans, employees at lower levels can be left on their own to perform activities within their resource allotment.

Vertical information systems: Vertical information systems are another strategy for increasing vertical information capacity. Vertical information systems include the periodic reports, written information, and computer-based communications distributed to managers. Information systems make communication up and down the hierarchy more efficient. Cisco Systems has turned vertical information systems into a competitive advantage by using the internet in virtually every aspect of its operations. Larry Carter, Cisco's CFO, can call up the company's revenues, profit margins and order information from the previous day with just a few mouse clicks. Financial data that once took weeks to gather are collected and organized automatically.

Managers may use a variety of these mechanisms to provide vertical linkage and control. The other major issue in organizing is horizontal linkages for coordination and collaboration.

HORIZONTAL INFORMATION LINKAGES

Horizontal communication overcomes barriers between departments and provides opportunities for coordination among employees to achieve unity of effort and organizational objectives. Horizontal linkage refers to the amount of communication and coordination horizontally across organizational departments. Its importance was discovered by Lee Iacocca when he took over Chrysler Corporation.

What I found a Chrysler were thirty-five vice presidents, each with his own turf… I couldn't believe, for example, that the guy running engineering departments wasn't in constant touch with his counterpart in manufacturing. Butt that's how it was. Everyone worked independently I took one look at that system and I almost threw up. That's when I knew I was in really deep trouble.

Nobody at Chrysler seemed to understand that interaction among the different functions in a company is absolutely critical. People in engineering and manufacturing almost have to be sleeping together. These guys weren't even flirting.

During his tenure at Chrysler (now Daimler Chrysler), Iacocca pushed horizontal coordination to a high level. Everyone working on a specific vehicle project – designers, engineers, and manufactures, as well as representatives from marketing, finance, purchasing, and even outside suppliers – worked together on a single floor so they could constantly communicate. Ford and General Motors have also enhanced horizontal communication and coordination through mechanisms such as teams, task forces, and information systems.

Horizontal linkage mechanisms often are not drawn on the organization chart, but nevertheless are part of organization structure. The following devices are structural alternatives that can improve horizontal coordination and information flow. Each device enables people to exchange information.

Information Systems: A significant method of providing horizontal linkage in today's organizations is the use of cross-functional information systems. Computerized information systems can enable managers or front – line workers throughout the organization to routinely exchange information about problems, opportunities, activities, or decision. For example, at ford, every car and truck model has its own internal we site to track design, production, quality control, and delivery processes. Ford's product – development system is updated hourly, enabling engineers, designers, suppliers, and other employees around the world to work from the same data, keeping the process moving and saving time and money.

Direct Contact: A higher level of horizontal linkage is direct contact between manages or employees affected by problem. One way to promote direct contact is to create a special liaison role. A liaison person is located in one department but has the responsibility for communicating and achieving coordination with another department. Liaison roles often exist between engineering and manufacturing departments because engineering has to develop and test products to fit the limitations of manufacturing facilities. Monsanto Co. found another way to use direct contact. To get the R & D and commercial staffs working together, Monsanto pairs a scientist with a marketing or financial specialist as co-managers. For example, Frederick Perlak, a noted geneticist, and Kevin Holloway, with a background in marketing and human resources, oversee the global cotton team as co- directors. They work in adjoining cubicles, share a secretary, spend hours talking with one another, and together make all the key decisions about Monsanto's global cotton business. Monsanto hopes this unique mechanism, known internally as two in the box, will help transform the company from a conglomerate into a life- sciences powerhouse.

Task forces: Direct contact and liaison roles usually link only two departments, when linkage involves several departments, a more complex device such as a task force is required. A task force is a temporary committee composed of representatives from each department affected by a problem. Each member represents the interest of a department and can carry information from the meeting back to that department.

Task forces are an effective horizontal linkage device for temporary issues. They solve problems by direct horizontal coordination and reduce the information load on the vertical hierarchy. Typically, they are disbanded after are disbanded after their tasks are accomplished.

Commercial Casework, a $ 10 million woodworking and cabinetry shop in Fremont, California, used a task force to research and design the company's bonus plan. The U.S Department of Defense set up a task force to reengineer its cumbersome travel system and make it cheaper, more efficient and more customers friendly. The task force reduced the steps in the pretravel process from thirteen to only four. Another task force brought together employees from various functional departments to tackle the issue of how to simplify the Defense department's travel regulations. Within three months, 230 pages of regulations had been reduced to a 16 – page pamphlet.

Full – time integrator: A stronger horizontal linkage device is to create a full time position or department solely for the purpose of coordination. A full – time integrator frequently has as title, such as product manger, project manager, program manager, or brand manager. Unlike the liaison person described earlier, the integrator does not report to one of the functional departments being coordinated. He or she is located outside the departments and has the responsibility for coordinating several departments.

The brand manger for planter's peanuts, for example, coordinates the sales, distribution and advertising for that product. General Motors set up brand managers who are responsible for marketing and sales strategies for each of GM's new models.

The integrator can also be responsible for an innovation or change project, such as developing the design, financing, and marketing of a new product. An organization chart that illustrates the location of project managers for new product development is shown in Exhibit 3.3. The project managers are drawn to the side to indicate their separation from other departments. The arrows indicate project members assigned to the new product development. New product a, for example, has a financial accountant assigned to keep track of costs and budgets. The engineering member provides design advice, and purchasing and manufacturing members represent their areas. The project manager is responsible for the entire project. He or she sees that the new product is completed on time, is introduced to the market, and achieves other project goals. The horizontal lines in Exhibit 3.3 indicate that project managers do not have formal authority over team members with respect to giving pay raises, hiring, or firing, Formal authority rests with the managers of the functional departments, who have formal authority over subordinates.

Integrators need excellent people skills. Integrators in most companies have a lot of responsibility but little authority. The integrator has to use expertise and persuasion to achieve coordination. He or she spans the boundary between departments and must be able to get people together, maintain their trust, confront problems, and resolve conflicts and disputes in the interest of the organization. American standard companies dramatically improved the efficiency and effectiveness of its chinaware division, which makes toilets and bidets, with the use of full-time integrators.

Teams: Project teams tend to be the strongest horizontal linkage mechanism teams are permanent taskforces and are often used in conjunction with a full time integrator. When activities among departments require strong coordination over a long period of time, a cross – functional team is often the solution. Special project teams may used when organizations have a large – scale project, a major innovation, or a new product line.

Boeing used around 250 teams to design and manufacture the 777 aircraft. Some teams were created around sections of the plane, such as the wing, cockpit, or engines, while others were developed to serve specific customers, such as United Airlines or British Airways. Boeing's teams had to be tightly integrated and coordination to accomplish this massive project. Even the U.S Department of the Navy has discovered the power of cross – functional teams to improve horizontal coordination and increase productivity.

The Rodney Hunt Company develops, manufactures, and markets heavy industrial equipment and uses teams to coordinate each product line across the manufacturing, engineering, and marketing departments. Members from each team meet the first thing each day as needed to resolve problems concerning customer needs, backlogs, engineering changes, scheduling conflicts, and any other problem with the product line.

These devices represent alternatives that managers can select to increase horizontal coordination in any organization. The higher- level devices provide more horizontal information capacity, although the cost to the organization in terms of time and human resources is greater. If horizontal communication is insufficient, departments will find themselves out of synchronization and will not contribute to the overall goals of the organization. When the amount horizontal coordination required is high, managers should select higher –level mechanisms.

ORGANIZATION STRUCTURE (contd.)

FUNCTIONAL, DIVISIONAL, AND GEOGRAPHICAL DESIGNS
Functional grouping and divisional grouping are the two most common approaches to structural design.

FUNCTIONAL STRUCTURE
In a functional structure, activities are grouped by common function from the bottom to the top of the organization. All engineers are located in the engineering department, and the vice president of engineering is responsible for all engineering activities. The same is true in marketing, research and development, and manufacturing.
With a functional structure, all human knowledge and skills with respect to specific activities are consolidated, providing a valuable depth of knowledge for the organization. This structure is most effective when in-depth expertise is critical to meeting organizational goals, when the organization needs to be controlled and coordinated through the vertical hierarchy, and when efficiency is important. The structure can be quite effective is there is little need for horizontal coordination. Exhibit 3.7 summarizes the strengths and weaknesses of the functional structure.
One strength of the functional structure is that is promotes economy of scale within function. Economy of scale means all employees are located in the same place and can share facilities. Producing all products in a single plant, for example, enables the plant to acquire the latest machinery. Constructing only one facility instead of separate facilities for each product line reduces duplication and waste. The functional structure also promotes in-depth skill development of employees. Employees are exposed to a range of functional activities within their own departments. The main weakness of the functional structure is a slow response to environmental changes that require coordination across departments. The vertical hierarchy becomes overloaded. Decisions pile up, and to managers do not respond fast enough. Other disadvantages of the functional structure are that innovation is slow because of poor coordination, and each employee has a restricted view of overall goals.

Strengths and Weaknesses of Functional Organization Structure
Strengths:
1. Allows economies of scale within functional departments
2. Enables in-depth knowledge and skill development
3. Enables organization to accomplish functional goals
4. Is best with only one or a few products

Weaknesses:
1. Slow response time to environmental changes
2. May cause decisions to pile on top, hierarchy overload
3. Leads to poor horizontal coordination among departments
4. Results in less innovation
5. Involves restricted view of organizational goals

The functional structure is just right for Blue Bell Creameries. The organization has chosen to stay medium-sized and focus on making a single product quality ice cream. However, as Blue ell expands, it may have problems coordinating across departments, requiring stronger horizontal linkages mechanisms.

Functional Structure with Horizontal Linkages

Today, there is a shift toward flatter, more horizontal structures because of the challenges introduced earlier. Very few of today's successful companies can maintain a strictly functional structure. Organizations compensate for the vertical functional hierarchy by installing horizontal linkages. Managers improve horizontal coordination by using information system, direct contact between department's full time integrator or project manager's task forces, or teams. Not – for- profit organizations are also recognizing the importance of horizontal linkages. One interesting use of horizontal linkages occurred at Karolinska Hospital in Stockholm, Sweden, which had 47 functional departments. Even after top executives cut that down to eleven, coordination was still woefully inadequate. The team set about reorganizing workflow at the hospital around patient care. Instead of bouncing a patient from department to department, Karolinska now envisions the illness to recovery period as a process with pits stops in admissions, X-ray, surgery, and so forth, the most interesting aspect of the approach is the new position of nurse coordinator, Nurse coordinators serve as full – time integrators, looking for situations where the baton is dropped

in the handoff within or between departments. The improved horizontal coordination dramatically improved productivity and patient care at Karolinska. Karolinska is effectively using horizontal linkages to overcome some of the disadvantages of the functional structure.

DIVISIONAL STRUCTURE

The term divisional structure is used here as the generic term for what is some times called a product structure or strategic business units. With this structure, divisions can be organized according to individual product, services, product groups, major projects or programs, divisions, businesses, or profit centers. The distinctive feature of a divisional structure is that grouping is based on organizational outputs.

The different between a divisional structure and a functional structure is that functional structure can be redesigned into separate product groups, and each group contains the functional departments of R&D, manufacturing, accounting, and marketing. Coordination across functional departments within each product group is maximized. The divisional structures promote flexibility and change because each unit is smaller and can adapt to needs of its environment. Moreover, the divisional structures decentralize decision making, because the lines of authority converge at a lower level in the hierarchy. The functional structure, by contrast, forces decisions, all the way to the top before a problem affecting several functions can be resolved.

The divisional organization form of structure is excellent for achieving coordination across functional departments. It works well when organizations can no longer be adequately controlled through the traditional vertical hierarchy, and when goals are oriented toward adaptation and change. Giant, complex organizations such a Genera Electric, Nestle, and Johnson & Johnson are subdivided into a series of smaller, self – contained organizations for better control and coordination. In these large companies, the units are sometimes called divisions, business, or strategic business units. The structure at Johnson & Johnson includes 180 separate operating units, including McNeil Consumer Products, makers of Tylenol; Ortho Pharmaceuticals, which makes Retin-A and birth control pills; and J & J Consumer Product, the company that brings us Johnson's Baby Shampoo and Bank – Aids, each division is a separately chartered, autonomous company operating under the guidance of Johnson & Johnson's Corporate headquarters.

Strengths and Weaknesses of Divisional Organization Structure

Strengths
1. Suited to fast change in unstable environment
2. Leads to client satisfaction because product responsibility and contact points are clear
3. Involves high coordination across functions
4. Best in large organizations with several products
5. Decentralizes decision making

Weaknesses
1. Eliminates economies of scale in functional departments
2. Leads to poor coordination across product lines
3. Eliminates in depth competence and technical specialization
4. Makes integration and standardization across product lines difficult

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At Microsoft, co-founder and Chairman Bill Gates and CEO Steve Ballmer ripped apart the company's structure to create eight new divisions and give managers unprecedented authority to run things as they see fit.

The divisional structure has several strengths that are of benefit to Microsoft. This structure is suited to fast change in an unstable environment and provides high product visibility. Since each product is a separate division, clients are able to contact the correct division and achieve satisfaction. Coordination across functions is excellent. Each product can adapt to requirements of individual customers or regions. The divisional structure typically works best in organizations that have multiple products or service and enough personnel to staff separate functional units. At corporations like Johnson & Johnson, PepsiCo, and now Microsoft, decision making is pushed down to the lowest levels. Each division is small enough to be quick on its feet, responding rapidly to changes in the market.

One disadvantage of using divisional structuring is that the organization losses economies of scale. Instead of fifty research engineers sharing a common facility in a functional structure, ten engineers may be assigned to each of five product divisions. The critical mass required for in depth research is lost, and physical facilities have to be duplicated for each product line. Another problem is that product lines become separate from each other, and

coordination across product lines can be difficult. As one Johnson & Johnson executive said, "We have to keep reminding ourselves that we work for the same corporation." There is some concern at Microsoft that the newly independent divisions might start offering products and services that conflict with one another.

Companies such as Hewlett-Packard and Xerox have a large number of divisions and have had had real problems with horizontal coordination. The software division may produce programs that are incompatible with business computers sold by other divisions. Customers are frustrated when a sales representative from one division is unaware of developments in other divisions. Task force and other linkage devices are needed to coordinate across divisions. A lack of technical specialization is also a problem in a divisional structure. Employees identify with the product line rather with a functional specialty. R&D Personal, for example, tends to do applied research to benefit the product line rather than basic research to benefit the entire organization. Microsoft is avoiding this problem by crating a separate division to do basic research.

GEOGRAPHICAL STRUCTURE

Another basis for structural grouping is the organization's users or customers. The most common structure in this category is geography. Each region of the country may have distinct tastes and needs. Each geographic unit includes all functions required to produce and market products in that region. For multinational corporations, self – contained units are crated for different countries and parts of the world.

Some years ago, apple Computer reorganized from a functional to a geographical structure to facilitate manufacture and delivery of Apple computers to customers around the world... McDonald's divided its U.S operation into five geographical divisions, each with its own president and staff functions such as human resources and legal. The regional structure allows apple and McDonalds to focus on the needs of customers in a geographical area.

The strengths and weaknesses of a geographic divisional structure are similar to the divisional organization characteristics listed below the organization can adapt to specific needs of its own region, and employees identify with regional goals rather than with national goals. Horizontal coordination within a region is emphasized rather than linkages across regions or to the national office.

MATRIX STRUCTURE

Sometimes, an organization's structure needs to be multi focused in that both product and function or product and geography are emphasized at the same time. One way to achieve this is through the matrix structure. The matrix can be used when both technical expertise and product innovation and change are important for meeting organizational goals; the matrix structure often is the answer when organizations find that neither the functional, divisional, nor geographical structures combined with horizontal linkage mechanisms will work.

The matrix is a strong form of horizontal linkage. The unique characteristic of the matrix organization is that both product division and functional structures (horizontal and vertical) are implemented simultaneously, the product managers and functional managers have equal authority within the organization, and employees report to both of them. The matrix structure is similar to the use of full-time integrators or product managers described earlier.

Conditions for the Matrix

A dual hierarch may seem an unusual way to design an organization, but the matrix is the correct structure when the following conditions are met.

Condition 1: pressure exists to share scarce resources across product lines. The organization is typically medium sized and has moderate number o product lines. It feels pressure for the shared and flexible use of people and equipment across those products. For example, the organization is not large enough to assign engineers full – time to each product line, so engineers are assigned part – time to several product or projects.

Condition 2: Environmental pressure exists for two or more critical outputs, such as for in depth technical knowledge (functional structure) and frequent new products (divisional structure). This dual pressure means a balance of power is needed between the functional and product sides of the organizational, and a dual – authority structure is needed to maintain that balance.

Condition 3:. The environmental domain of the organization is both complex and uncertain. Frequent external changes and high interdependence between departments require a large amount of coordination and information processing in both vertical and horizontal directions.

Under these three conditions, the vertical and horizontal lines of authority must be given equal recognition. A dual – authority structure is thereby created so the balance of power between them is equal.

The matrix formalizes horizontal teams along with the traditional vertical hierarchy and tries to give equal balance to both. However, the matrix may shift one way or the other. However, the matrix may shift one way or the other. Many companies have found a balanced matrix hard to implement and maintain because one side of the authority structure often dominates. Recognizing this tendency, two variations of matrix structure have evolved – the functional matrix and the product matrix. In a functional matrix, the functional bosses have primary authority and the project or product managers simply coordinate product activities. In a product matrix, by contrast, the project or product managers have primary authority and functional managers simply assign technical personnel to projects and provide advisory expertise as needed. For many organizations, one of these approaches works better than the balanced matrix with dual lines of authority.

All kinds of organization have experimented with the matrix, including hospital, consulting firms, banks, insurance companies, government agencies; and many types of industrial firms. This structure has been used successfully by organizations such as IBM and Unilever, which fine – turned the matrix to suit their own particular goals and culture.

Strengths and Weaknesses

The matrix structure is best when environmental change is high and when goals reflect a dual requirement, such as for both product and functional goals. The dual – authority structure facilitates communication and coordination to cope with rapid environmental change and enables an equal balance between product and functional bosses. The matrix facilitates discussion and adaptation to unexpected problems. It tends to work best in organization of moderate size with a few product lines. The matrix is not needed for only a single product line, and too many product lines makes it difficult to coordinate both direction at once.

Strengths and Weakness of Matrix Organization Structure

Strengths:
1. Achieves coordination necessary to meet dual demands from customers
2. Flexible sharing of human resources across products
3. Suited to complex decisions and frequent changes in unstable environment
4. Provides opportunity for both functional and product skill development
5. Best in medium sized organization with multiple products.

Weaknesses:
1. Causes participant to experience dual authority. Which can be frustrating and confusing
2. Means participants needs good interpersonal skills and extensive training
3. is time consuming involves frequent meetings and conflict resolution sessions
4. will not work unless participants understand it and adopt collegial rather than vertical type relationship
5. Require great effort to maintain power balance

The strength of the matrix is that it enables an organization to meet dual demands from customers in the environment. Resources (people, equipment) can be flexibly allocated across different products, and the organization can adapt to changing external requirements. This structure also provides an opportunity for employees to acquire either functional or general management skills, depending on their interests.

One disadvantage of the matrix is that some employees experience dual authority, which is frustrating and confusing. They need excellent interpersonal and conflict – resolution skills, which may require special training in human relations. The matrix also forces managers to spend a great deal of time in meetings. If managers do not adapt to the information and power sharing required by the matrix, the system will not work. Managers must collaborate with one another rather than rely on vertical authority in decision making. The successful implementation of one matrix structure occurred at a steel company in Pittsburgh.

This example illustrates the correct use of a matrix structure. The dual pressure to maintain economies of scale and to market four product lines give equal emphasis to the functional and product hierarchies. Through continuous meetings for coordination, worldwide steel achieved both economies of scale and flexibility.

ORGANIZATION STRUCTURE (contd.)

HORIZONTAL STRUCTURE
The most recent approach to organizing is the horizontal structure, which organizes employees around core processes. All the people who work on a particular process are brought together so that they can easily communicate and coordinate their efforts and provide value directly to customers. The horizontal structure virtually eliminates both the vertical hierarchy and old departmental boundaries. Many of today's organizations are striving to reduce boundaries both within the organization and with other companies. The horizontal structure is largely a response to the profound changes that have occurred in the workplace and the

Business environment over the past fifteen to twenty years: Technological process emphasizes computer-based integration and coordination. Customers except faster and better service and employees want opportunities to use their minds, learn new skills, and assume greater responsibility. Organizations mired in a vertical mindset have a hard time meeting these challenges. Thus, numerous organizations have experimented with horizontal mechanisms such as cross-functional teams to achieve coordination across departments or task forces to accomplish temporary projects. Increasingly, organizations are shifting away from hierarchical, function-based structures to structures based on horizontal processes.

Characteristics
- A horizontal structure has the following characteristics:
- Structure is created around cross-functional core processes rather than tasks, functions, or geography. Thus, boundaries between departments are obliterated. Ford Motor Company's Customer Service Divisions. For example, has core process groups for business development, parts supply and logistics, which service and programs, and technical support.
- Self Directed teams, not individuals, are the basis of organizational design and performance.
- Process owners have responsibility for each core process in its entirety, for Ford's parts supply and logistics process, for example, a number of teams may work on jobs such as parts analysis, purchasing, material flow, and distribution, but a process owner is responsible for coordinating the entire process. People on the team are given the sills, tools motivation, and authority to make decisions central to the team's performance. Team members are cross-trained to perform one another's jobs, and the combined skills are sufficient to complete a major organizational task.
- Teams have the freedom to think creatively and respond flexibly to new challenges that arise.
- Customer drive the horizontal corporation, effectiveness is measured by end-of –process performance objectives (based on the goal of bringing value to the customers, as well as customer satisfaction, employee satisfaction, and financial contribution.
- The culture is one of openness, trust, and collaboration, focused on continuous improvement. The culture values employee empowerment, responsibility, and well being.

Experimentation with teams and horizontal organizing often begins at lower levels of the organization. Today, however a few companies are structuring practically the entire organization horizontally, with perhaps only a few senior executives in traditional support functions such as human resources or fiancé. Xerox, for example, still maintains some elements of a vertical design, but below the level of executive vice president, the entire organization is structured horizontally.

Strengths and Weaknesses
Although Xerox has achieved impressive results with a horizontal structure, as with al structures, it has weaknesses as well as strengths. The strengths and weaknesses of the horizontal structure are listed below.

The most significant strength of the horizontal structure is that it can dramatically increase the company's flexibility and response to changes in customer needs because of the enhance coordination. The structure directs everyone's attention towards the customer, which leads to greater customer satisfaction as well as improvements in productivity, speed, and efficiency. In additional, because there are no boundaries between functional departments, employees take as broader view of organizational goals rather than being focused on the goals of a single department. The horizontal structure promotes an emphasis on teamwork and cooperation, such that team members share a commitment to meeting common objectives. Finally, the horizontal structure can improve the quality of life for employees by giving those opportunities to share responsibility, make decisions, and contribute significantly to the organization.

A weakness of the horizontal structure is that it can harm rather than help organizational performance unless managers carefully determine which core processes are critical for bringing value to customers. Simply defining the processes around which to organize can be difficult and time consuming. AT&T's Network Systems Division eventually counted 130 processes, then began working to pare them down to fewer than 15 core ones. In addition, shifting to a horizontal structure is time consuming because it requires significant changes in culture, job design, management philosophy, and information and reward systems. Traditional managers may balk when they have to give up power and authority to serve instead as coaches and facilitators of teams. Employees have to be trained to work effectively in a team environment. Finally, because of the cross-functional nature of work, a horizontal structure can limit in depth knowledge a skill development unless measures are taken to give employees opportunities to maintain and build technical expertise can limit in depth skill development.

Strengths and Weakness of Horizontal Structure

Strengths:
1. Promotes flexibility and rapid response to changes in customer needs.
2. Directs the attention of everyone toward the production and delivery of value to the customer
3. Each employee has broader view of organizational goals.
4. Promotes a focus on teamwork and collaboration
5. Improve quality of life for employees by offering them the opportunity to share responsibility, make decision and be accountable for outcomes.

Weaknesses:
1. Determining core processes is difficult and time consuming
2. Requires changes in culture. Job design, management philosophy, and information and reward systems.
3. Traditional managers may balk when they have to give up power and authority
4. Requires significant training of employees to work effectively in a horizontal team environment.

HYBRID STRUCTURE

As a practical mater, many structures in the real work do not exist in the pure forms we have outlined in this discussion, particularly in today's complex business environment; organizations often use a hybrid structure that combines characteristics of various approaches tailored to specific strategic needs. Most companies combine characteristics of functional, divisional, geographical, or horizontal structures to take advantage of the strengths of various structures and to avoid some of the weaknesses. Hybrid structures tend to be used in rapidly changing environments because they offer the organization greater flexibility.

One type of hybrid that is often used is to combine characteristics of the functional and divisional structures. When a corporation grows large and has several products or markets. It typically is organized into self – contained divisions of some type. Functions that are important to each product or market are decentralized to the self – contained units. However, some functions that are relatively stable and require economies of scale and in –depth specialization are also centralized at headquarters. Sun Petroleum Products (SPPC) reorganized to a hybrid structure to be more responsive to changing markets. The new hybrid organization structure adopted by SPPC has three major product divisions – fuels, lubricants, and chemicals – were created each serving a different market and requiring a different strategy and management style, each product line vice president is now in charge of all functions for that product, such as marketing, planning, supply and distribution, and manufacturing. However, activities such as human resources, legal, technology, and fiancé were centralized as functional departments at headquarters in order to achieve economies of scale. Each of these departments provides services for the entire organization.

A second hybrid approach that is increasingly used today is to combine characteristics of functional and horizontal structures. For d Motor Company's customer Service Division, a global operations made up of 12000 employees serving nearly 15000 dealers, provides an example of this type of hybrid. Beginning in 1995, when Ford launched its "Ford 2000" initiative to become the world's leading automotive firm in the twenty – first century, top executives grew increasingly concerned about complaints regarding customer service. They decided that the horizontal model offered the best chance to gain a faster, more efficient, integrated approach to customer service. Several horizontally aligned groups, make up of multi skilled teams, focus on core processes such as parts supply and logistics (acquiring parts and getting them to dealers quickly and efficiently), vehicles service and programs (collecting and disseminating information about repair problems), and technical support (ensuring that every service department

receives updated technical information). Each group has a process owner who is responsible for seeing that the teams meet overall objectives. Ford's Customer Service Divisions retained a functional structure for finance, strategy and communication, and human resources departments. Each of these departments provides services for the entire division.

In a huge organization such as Ford, Managers may use a variety of structural characteristics to meet the needs of the total organization. A hybrid structure is often preferred over the pure functional, divisional, or horizontal structure because it can provide some of the advantages of each and overcome some of the disadvantages.

APPLICATION S OF STRUCTURAL DESIGN

Each type of structure is applied in different situations and meets different needs. In describing the various structures, we touched briefly on conditions such as environmental stability or change and organizational size that are related to structure. Each form of structure – functional, divisional, matrix, horizontal, and hybrid – represents a tool that can help managers make an organization more effective, depending on the demands of its situation.

STRUCTURAL CONTINGENCIES

Recall the idea of "contingencies" from earlier discussions and that managers design the organization to fit the contingency factors. Structure is influenced by environment, strategy and goals, culture, technology, and size. Of these contextual variables, the connection between competitive strategy and structure is of particular interest and has been widely studied. Structure typically reflects organizational strategy, and a change in product or market strategy frequently leads to a change in structure. Strategy and goals were discussed in detail in earlier. Once a company formulates a strategy by which it plans to achieve a competitive advantage in the marketplace, leaders design or redesign the structure to coordinate organizational activities to best achieve that advantage. As discussed earlier, Xerox shifted to a horizontal structure after CEO Paul Allaire and other top executives developed a new strategic direction that required flexibility and close horizontal coordination.

STRUCTURAL ALIGNMENT

Ultimately, the most important decision that managers make about structural design is to find the right balance between vertical control and horizontal coordination, depending on the needs of the organization. Vertical control is associated with goals of efficiency and stability, while horizontal coordination is associated with learning, innovation, and flexibility. The functional structure uses task specialization and a strict chain of command to gain efficient use of scarce resources, but is does not enable the organization to be flexible or innovative. At the opposite end of scale, the horizontal structure is appropriate when the organization has a high need for coordination among functions to achieve innovative. At the opposite end of the scale, the horizontal structure is appropriate when the organization has a high need for coordination among functions to achieve innovation and promote learning. The horizontal structure enables organizations to differentiate themselves and respond quickly to changes, but at the expense of efficient resource use.

SYMPTOMS OF STRUCTURAL DEFICIENCY

Top executives periodically evaluate organization structure to determine whether it is appropriate to changing organization needs. Many organizations try one organization structure, and then reorganize to another structure in an effort to find the right fit between internal reporting relationships and the needs of the external environment. Compaq Computer Corporation, for example, switched from a functional structure to a divisional structure for about a year to develop new products and then switched back to a functional structure to reduce competition among its product lines.

As a general rule, when organization structure is out of alignment with organization needs, one or more of the following symptoms of structural deficiency appear. Decision making is delayed or lacking in quality. Decision makers may be overloaded because the hierarchy funnels too many problems and decisions to them. Delegation to lower levels may be insufficient. Another cause of poor quality decisions is that information may not reach the correct people. Information linkages in either the vertical or horizontal direction may be inadequate to ensure decision quality.

The organization does not respond innovatively to a changing environment. One reason for lack of innovation is that departments are not coordinated horizontally. The identification of customer needs by the marketing department and the identification of technological development in the research department must be coordinated. Organization structure also has to specify departmental responsibilities that include environmental scanning and innovation.

Too much conflict is evident. Organization structure should allow conflicting departmental goals to combine into a single set of goals for the entire organization. When departments act at cross purposes or are under pressure to achieve departmental goals at the expense of organizational goals, the structure is often at fault – horizontal linkage mechanisms are not adequate.

Organization structure must accomplish two things for the organization. It must provide a framework of responsibilities, reporting relationships, and groupings and it must provide mechanisms for linking and coordinating organizational elements into a coherent whole. The structure is reflected on the organization chart linking the organization into a coherent whole requires the use of information systems and linkage devices in addition to the organization chart.

It is important to understand the information – processing perspective on structure. Organization structure can be designed to provide vertical and horizontal information linkages based on the information processing required meeting the organization's overall goal. Managers can choose whether to orient toward a traditional organization designed for efficiency, which emphasize vertical linkages such as hierarchy, rules and plans, and formal information systems, to toward a contemporary learning organizations, which emphasizes horizontal communication and coordination. Vertical linkages are not sufficient for most organizations today. Organizations provide horizontal linkages through cross functional information systems, direct contact between managers across department lines, temporary task forces, full time integrators, and teams.

Alternatives for grouping employees and departments into overall structural design include functional grouping, divisional grouping, and multi focused grouping, and horizontal grouping. The choice among functional, divisional, and horizontal structures determines where coordination and integration will be greatest. With functional and divisional structures, managers also use horizontal linkage mechanism to complement the vertical dimension and achieve integration of departments and level into an organizational whole. With a horizontal structure, activities are organized horizontally around core work processes. The matrix structure attempts to achieve an equal balance between the vertical and horizontal dimensions of structure. Most organizations do not exit in these pure forms, using instead a hybrid structure that incorporates characteristics of two or more types of structure. Ultimately, managers attempt to find the correct balance between vertical control and horizontal coordination.

Finally an organization chart is only so many lines and boxes on a piece of paper. A new organization structure will not necessary solve an organization's problems. The organization chat simply reflects what people should do and what their responsibilities are. The purpose of the organization chart is to encourage and direct employees into activities and communications that enable the organization to achieve its goals. The organization chart provides the structure, but employees provide the behavior, the chart is a guideline to encourage people to work together, but management must implement the structure and carry it out.

THE EXTERNAL ENVIRONMENT

THE ENVIRONMENTAL DOMAIN
In a broad sense the environment is infinite and everything outside the organization. However, the analysis presented here considers only the aspects of the environment to which the organization is sensitive and must respond to survive. Thus, organizational environment is defined as all elements that exist outside the boundary of the organizational environment is defined as all elements that exist outside the boundary of the organization and have the potential to affect or part of the organization.

The environment of an organization can be understood by analyzing its domain within external sectors. An organization's domain is the chosen environmental field of action. It is the territory an organization stakes out for itself with respect to products, services, and markets served. Domain defines the organization's niche and defines those external sectors with which the organization will interact to accomplish its goals. Barnes & Nobel ignored an important part of its domain when the bookselling environment changed. The company was slow to take advantage of new technology for e-commerce, allowing the competition to gain a huge advantage.

The environment comprises several sectors or subdivisions of the external environment that contain similar elements. Ten sectors can be analyzed for each organization: industry, raw materials, human resources, financial resources, market, technology, economic conditions, government, sociocultural, and international.

The sectors and a hypothetical organizational domain are illustrated in below for most companies; the sectors can be further subdivided into the task environment and general environment.

ENVIRONMENTAL UNCERTAINTY
How does the environment influence an organization? The patterns and events occurring across environmental sectors can be described along several dimensions, such as whether the environment is stable or unstable, homogeneous or heterogeneous, concentrated or dispersed, simple or complex; the extent of turbulence, and the amount of resources available to support the organization. These dimensions boil down to two essential ways the environment influences organizations; (1) the need for information about the environment and (2) the need for resources from the environment. The environment conditions of complexity and change create a greater to gather information and to respond based on that information. The organization also is concerned with scare material and financial resources and with the needs to ensure availability of resources. Each sector can be analyzed relative to these three analytical categories. The remainder of this section will discuss the information perspective, which is concerned with the uncertainty that environmental complexity and change create for the organization.
Organizations must cope with and manage uncertainty to be effective.

Uncertainty means that decision makers do not have sufficient information about environmental factors, and they have a difficult time predicting external changes uncertainty increase the risk of failure for organizational response and makes it difficult to compute costs and probabilities associated with decision alternatives. Characteristics, of the environment domain that influence uncertainty are the extent to which the external domain is simple or complex and the extent to which events are stable or unstable.

SIMPLE – COMPLEX DIMENSION
The simple – complex dimension concerns environmental complexity, which refers to heterogeneity. or the number and dissimilarity of external elements relevant to an organization's operation. In a complex environment, many diverse external elements interact with and influence the organization. In a simple environment, as few as three or four similar external elements influence the organization.

Telecommunications firms, such as AT&T and British Telecom have a complex environment, as do universities. Universities span a large number of technologies and are a focal point for cultural and value changes. Government regulatory and granting agencies interact with a university, and so do a variety of professional and scientific associations, alumni, parents, foundations, legislators, community resident, international agencies, donors, corporations, and athletic teams. A large number of external elements thus make up the organization's domain, crating a complex environment. On the other hand, a family – owned hardware store in a suburban community is in a simple environment. The only external elements of any real importance are few competitors, suppliers and customers. Government regulation is minimal, and cultural change has little impact. Human resources are not a problem because the store is run by family members or part – time help.

STABLE – UNSTABLE DIMENSION

The stable – unstable dimension refers to whether elements in the environment are dynamic. An environmental domain is stable if it remains the same over a period of months or years. Under unstable conditions, environmental elements shift abruptly. Instability may occur when competitors react with aggressive moves and countermoves regarding advertising and new products. For example, aggressive advertising and introduction of new products can create instability for companies, such as Coke's giving away 2 million Coca – Cola cards to build its teen market in New York City and the introduction of Surge to compete with Pepsi's Mountain Dew. Sometimes specific, unpredictable events – such as reports of syringes in cans of Pepsi or glass shards in Gerber's baby foods, the poisoning of Tylenol, or the Church of Scientology's attack on the antidepressant drug Prozac-create unstable conditions. Today's "hate sites" on the World Wide Web, such as ihatemcdonalds.com and Walmartsucks.com are an important source of instability for scores of companies, from Allstate Insurance to Toys "R" Us. Microsoft critics can visit more than twenty hate sites.

Although environments are becoming more unstable for most organization today, an example of a traditionally stable environment is a public utility. In the rural Midwest, demand and supply factors for a public utility are stable. A gradual increase in demand may occur, which is easily predicted over time. Toy companies, by contrast, have an unstable environment. Hot new toys are difficult to predict, a problem compounded by the fact that toys are subject to fad buying Coleco Industries, makers of the once-famous Cabbage Patch Kids, and Worlds of Wonder, creators of Teddy Ruxpin went bankrupt because of the unstable nature of the toy environment, their once - winning creations replaced by Bandai's Mighty Morphin Power Rangers or Playmate Toys' Teenage Mutant Ninja Turtles. Those toys, in turn, were replaced by fads such as Furby, Beanie Babies, Star Wars figures, and Pokemon.

FRAME WORK

The simple – complex and stable – unstable dimensions are combined into a framework for assessing environmental uncertainty. In the single, stable environment, uncertainty is low. There are only a few external elements to contend with, and they tend to remain stable. The complex, stable environment represents somewhat greater uncertainty. A large number of elements have to be scanned, analyzed, and acted upon for the organization to perform well. External elements do not change rapidly or unexpectedly in this environment.

Even greater uncertainty is felt in the simple, unstable environment. Rapid change crates uncertainty for mangers. Even though the organization has few external elements those elements are hard to predict, and they react unexpectedly to organization initiatives. The greatest uncertainty for an organization occurs in the complex, unstable environment. A large number of elements impinge upon the organization, and they shift frequently or react strongly to organizational initiatives. When several sectors change simultaneously, the environment becomes turbulent.

A beer distribution functions in a simple, stable environment, demand for beer changes only gradually. The distributor has an established delivery route, and supplies of bear arrive on schedule. State universities, appliance manufacturers, and insurance companies are in somewhat stable, complex environments. A large number of external elements are present, but although they change, changes are gradual and predictable.

Toy manufacturers are in simple, unstable environments. Organizations that design make and sell toys, as well as those that are involved in the clothing or music industry. Face shifting supply and demand. Most e-commerce companies focus on a specific competitive niche and hence, operate in simple but unstable environments. Al though there may be few elements to contend with – e.g. technology, competitors – they are difficult to predict and change abruptly and unexpectedly.

The computer industry and the airline industry face complex, unstable environments. Many external sectors are changing simultaneously. In the case of airlines, in just a few years they were confronted with deregulation, the growth of regional airlines, surges in fuel costs, price cuts from competitors such as Southwest. Airlines, shifting customer demand, an air – traffic controller shortage, overcrowded airports, and a reduction of scheduled flights. A recent series of major air traffic disasters has further contributed to the complex, unstable environment for the industry.

In today's world of increased global competition rapid technological breakthroughs, and shifting markets, companies in all industries are facing a greater level of complexity and change.

ADAPTING TO ENVIRONMENT UNCERTAINTY

Once you see how environments differ with respect to change and complexity, the next question is, "How do organizations adapt to each level of environmental uncertainty? Environmental uncertainty represents an important contingency for organization structure and internal behaviors. Recall from earlier discussions that organizations facing uncertainty generally have a more horizontal structure that encourages cross- functional communication and collaboration to help the company adapt to changes in the environment. In this section we will discuss in more detail how the environment affects organizations. An organization in a certain environment with respect to

positions and departments, organizational differentiation and integration, control processes, and future planning and forecasting. Organization need to have the right fit between internal structure and the external environment.

POSITIONS AND DEPARTMENTS

As the complexity in the external environment increases, so does the number of positions and departments within the organization, which in turn increases internal complexity. This relationship is part of being an open system. Each sector in the external environment requires an employee or department to deal with it. The human resources department deals with unemployed people who want to work for the company. The marketing department finds customers. Procurement employees obtain raw materials from hundreds of suppliers. The finance group deals with bankers. The legal department works with the courts and government agencies. Today, many companies are adding e-business departments to handle electronic commerce and information technology departments to deal with the increasing complexity of computerized information and knowledge management systems.

BUFFERING AND BOUNDARY SPANNING

The traditional approach to coping with environmental uncertainty was to establish buffer departments. The buffering role is to absorb uncertainty from the environment. The technical core performs the primary production activity of an organization. Buffer departments surround the technical core and exchange materials, resources, and money between the environment and the organization.

They help the technical core function efficiently. The purchasing departments buffer the technical core by stockpiling supplies and raw materials. The human resources department buffers the technical core by handling the uncertainty associated with finding. Hiring, and training production employees.

A newer approach some organizations are trying is to drop the buffers and expose the technical core to the uncertain environment. These organizations no longer crate buffers because they believe being well connected to customers and suppliers is more important than internal efficiency. For example, John Deere has assembly - line workers visiting local farms to determine and respond to customer concerns. Whirlpool pays hundreds of customers to test computer-simulated products and features. Opening up the organization to the environment makes it more fluid and adaptable.

Boundary – spanning roles link and coordinate an organization with key elements in the external environment. Boundary spanning is primarily concerned with the exchange of information to (1) detect and bring into the organization information about changes in the environment and (2) send information into the environment that presents the organization in a favorable light.

Organizations have to keep in touch with what is going on in the environment so that managers can respond to market changes and other developments. A survey of high – tech firms found that 97 percent of competitive failures resulted from lack of attention to market changes or the failure to act on vital information. To detect and bring important information into the organization, boundary personnel scan the environment. For example, a market research department scans and monitors trends in consumer tastes. Boundary Spanners in engineering and research and development (R&D) department Scan new technological developments, innovations, and raw materials. Boundary spanners prevent the organization from stagnating by keeping top managers informed about environmental changes. Often the greater the uncertainty in the environment, the greater the importance of boundary spanners.

One of the fastest growing areas of boundary spanning is competitive intelligence. Companies large and small are setting up competitive intelligence departments or hiring outside specialists to gather information on competitors. Competitive intelligence gives top executives a systematic way to collect and analyze public information about rivals and use it to make better decisions. Using techniques that range from internet surfing to digging through trash cans, intelligence professionals dig up information on competitors' new products, manufacturing costs, or training methods and share it with top leaders. For example, NutraSweet's competitive intelligence department helped the company delay a costly advertising campaign when it learned that a rival sweetener was at least five years away from FDA approval. In today's uncertain environment, competitive intelligence is a trend that is likely to increase. In addition, companies such as UtiliTech Inc. of Stratford, Connecticut, and WavePhore Inc. of Phoenix, Arizona, regularly monitor the internet for large corporation to see what is being said about them on the web. This provides important information to top executives about how the company is perceived in the environment.

The boundary task of sending information into the environment to represent the organization is used to influence other people's perception of the organization. In the marketing department, advertising and sales people represent the organization to customers. Purchasers may call on suppliers and describe purchasing needs. The legal

department informs lobbyists and elected officials about the organization's needs or views on political matters. Many companies set up their own Web pages to present the organization in a favorable light. To counteract hate sites that criticizes their labor practices in Third World countries. Nike and Unocal both created Web sites specifically to tell their side of the story.

All organizations have to keep in touch with the environment. Here's how Tommy Hilfiger spans the boundary in the shifting environment of the fashion industry to stay ahead of the style curve.

DIFFERENTIATION AND INTEGRATION
Another response to environmental uncertainty is the amount of differentiation and integration among departments. Organization differentiation is "the differences in cognitive and emotional orientations among mangers in different functional departments, and the difference in formal structure among these departments. When the external environment is complex and rapidly changing, organizational departments become highly specialized to handle the uncertainty in their external sector. Success in each sector requires special expertise and behavior. Employees in a research and development department thus have unique attitudes, values, goals, and education that distinguish them from employees in manufacturing or sales departments.

A study by Paul Lawrence and Jay Lorsch examined three organizational departments --- manufacturing, research, and sales – in ten corporations. This study found that each department evolved toward a different orientation and structure to deal with specialized parts of the external environment. Each department interacted with different external groups. The differences that evolved among departments within the organization are shown in below to work effectively with the scientific sub environment, R&D had a goal of quality work, a long time horizon (up to five years), an informal structure, and task – oriented employees. Sales were at the opposite extreme. It had a goal of customer satisfaction, was oriented toward the short term (two weeks or so), had a very formal structure, and was socially oriented.

One outcome of high differentiation is that coordination among departments becomes difficult. More time and resources must be devoted to achieving coordination when attitudes, goals, and orientation differ so widely. Integration is the quality of collaboration among departments. Formal integrators are often required to coordinate departments. When the environment is highly uncertain, frequent changes require more information processing to achieve horizontal coordination, so integrators become a necessary addition to the organization structure. Sometimes integrators are called liaison personnel, project managers, brand managers, or coordinators. As illustrated in below Organizations with highly uncertain environments and a highly differentiated structure assign about 22 percent of management personnel to integration activities, such as serving on committees, on task forces, or in liaison roles. In organization characterized by very simple, stable environments, almost no managers are assigned to integration roles. Below example Shows that, as environmental uncertainty increases, so does differentiation among departments; hence, the organization must assign a larger percentage of managers to coordinating roles.

Lawrence and Lorsch's research concluded that organizations perform better when the levels of differentiation and integration match the level of uncertainty in the environment. Organizations that performed well in uncertain environments had high levels of both differentiation and integration, while those performing well in less uncertain environments had lower levels of differentiation and integration.

Differences in Goals and Orientations among Organizational Departments

Characteristic	R&D Department	Manufacturing Department	Sales Department
Goals	New developments, quality	Efficient production	Customer Satisfaction
Time horizon	Long	Short	Short
Interpersonal Orientation	Mostly task	Task	Social
Formality of structure	Low	High	High

Environmental Uncertainty and Organizational Integrators.

	Plastics	Industry Foods	Container
Environmental uncertainty	High	Moderate	Low
Departmental Differentiation	High	Moderate	Low
Percent management in integrating roles	22%	17%	0%

ORGANIC VERSUS MECHANISTIC MANAGEMENT PROCESSES
Another response to environmental uncertainty is the amount of formal structure and control imposed on employees. Tom Burns and G.M. Stalker observed twenty industrial firms in England and discovered that external

environment was related to internal management structure. When the external environment was stable, the internal organization was characterized by rules, procedures, and a clear hierarchy of authority. Organizations were formalized. They were also centralized, with most decisions made at the top. Burns and Stalker called this a mechanistic organization system.

In rapidly changing environments, the internal organization was much looser, free flowing, and adaptive. Rules and regulations often were not written down or, if written down, were ignored. People had to find their own way through the system to figure out what to do. The hierarchy of authority was not clear. Decision – making authority was decentralized. Burns and Stalker used the term organic to characterize this type of management structure.

Summarizes the differences in organic and mechanistic systems: As environmental uncertainty increases, organizations tend to become more organic, which means decentralizing authority and responsibility to lower levels, encouraging employees to take care of problems by working directly with one another, encouraging teamwork, and taking an informal approach to assigning

Mechanistic and Organic Forms

Mechanistic	Organic
Tasks are broken down into specialized separate parts.	Employees contribute to the common tasks of the department.
Tasks are rigidly defined.	Tasks are adjusted and redefined through employee teamwork.
There is a strict hierarchy of authority and control, and there are many rules.	There is less hierarchy of authority and control, and there are few rules.
Knowledge and control tasks are centralized at the top of organization.	Knowledge and control of tasks are located anywhere in the organization.
Communication is Vertical.	Communication is horizontal.

Task and responsibility: Thus, the organization is more fluid and is able to adapt continually to changes in the external environment.

The learning organization and the horizontal structure are organic organizational forms that are used by companies to compete in rapidly changing environments. One example of a company that shifted to more organic system to cope with change and uncertainty is Rower Furniture Company, described in the Taking the Lead box.

PLANNING AND FORECASTING
The final organizational response to uncertainty is to increase planning and environmental forecasting when the environment is stable; the organization can concentrate on current operational problems and day-to-day efficiency. Long-range planning and forecasting are not needed because environmental demands in the future will be the same as they are today.

With increasing environmental uncertainty, planning and forecasting become necessary. Planning can soften the adverse impact of external shifting. Organizations that have unstable environments often establish a separate planning department. In an unpredictable environment, planners scan environmental elements and analyze potential moves and countermoves by other organizations. Planning can be extensive and may forecast various scenarios for environmental contingencies. As time passes, plane is updated through replanning. However, planning does not substitute for other actions, such as boundary spanning. Indeed, under conditions of extraordinarily high uncertainty, formal planning may not be helpful because the future is so difficult to predict. Learning organizations keep everyone in constant touch with the environment so they can spot threats and opportunities, enabling the organization to respond immediately.

EXTERNAL ENVIRONMENT (contd.)

FRAMEWORK FOR ORGANIZATIONAL RESPONSES TO UNCERTAINTY
The change and complexity dimensions are combined and illustrate four levels of uncertainty. The low uncertainty environment is simple and stable. Organizations in this environment have few departments and a mechanistic structure. In a low – moderate uncertainty environment, more departments are needed along with more integrating roles to coordinate the departments. Some planning may occur. Environments that are high-moderate uncertainty are unstable but simple; organization structure is organic and decentralized. Planning is emphasized and managers are quick to make internal changes as needed. The high uncertainty environment is both complex and unstable and is the most difficult environment from a management perspective. Organizations are large and have many departments, but they are also organic. A large number of management personnel are assigned to coordination and integration, and the organization uses boundary spanning, planning, and forecasting.

RESOURCE DEPENDENCE
There are several ways in which organizations adapt to the lack of information and to the uncertainty caused by environmental change and complexity. We turn now to the third characteristic of the organization environment relationship that affects organizations, which is the need for material and financial resources. The environment is the source of scare and valued resources essential to organizational survival. Research in this area is called the resource dependence perspective. Resource Dependence means that organizations depend on the environment but strive to acquire control over resources to minimize their dependence. Organizations are vulnerable if vital resources are controlled by other organizations, so they try to be as independent as possible, Organizations do not want to become too vulnerable to other organizations because of negative effects on performance. For example, several years ago the supplier for more than half of Mattress Warehouse's stock decided to open a factory direct store in the same market. Mattress Warehouse had only a week's notice that the supplier relationship was terminated, leaving the company scrambling to find another bedding vendor, it was a wake-up call for Mattress Warehouse owner Kimberly Brown Knopf, who diversified her supplier base to prevent the loss of one supplier from jeopardizing her business in the future.

When costs and risks are high, however, companies also team up to reduce resource dependence and the possibility of bankruptcy. In today's volatile environment, companies are collaborating as never before to share scarce resources and be more competitive on a global scale.

Formal relationships with other organizations, however, present a dilemma to managers. North American organizations seek to reduce vulnerability with respect to resources by developing links with other organizations, but they also like to maximize their own autonomy and independence. Organizational linkages require coordination, and they reduce the freedom of each organization to make decisions without concern for the needs and goals of other organizations. Inter organizational relationships thus represent a tradeoff between resources and autonomy. To maintain autonomy, organizations that already have abundant resources will tend not to establish new linkages. Organizations that need resources will give up independence to acquire those resources.

Dependence on shared resources gives power to other organizations. Once an organization relies on other for valued resources, those other organizations can influence managerial decision making. When large companies like DuPont, Motorola, or Xerox forges a partnership with a supplier for parts, both sides' benefits, but each loses a small amount of autonomy. For example, some of these large companies are now putting strong pressure on vendors to lower costs, and the vendors have few alternatives but to go along. In much the same way, dependence on shared resources gives advertisers power over print and electronic media companies. For example, as newspapers face increasingly tough financial times, they are less likely to run stories that are critical of advertisers. Though newspapers insist advertisers don't get special treatment, some editors admit there is growing talk around the country of the need for "advertiser – friendly" newspapers.

In another industry, Microsoft is so large and powerful that it has a virtual monopoly in personal computer operating systems, so its every technical change adversely affects producers of application software. Microsoft has been accused of abusing this power and of squashing small competitors that would like to link up with it.

CONTROLLING ENVIRONMENTAL RESOURCES
In response to the need for resources, organizations try to maintain a balance between linkages with other organizations and their own independence organizations maintain this balance through attempts to modify, manipulate, or control other organizations. To survive, the focal organizations often tries to reads out and change

or control elements in environment. Two strategies can be adopted to manage resources in the external environment; (1) establish favorable linkages with key elements in the environment and (2) shape the environmental domain. Techniques to accomplish each of these strategies are summarized in below. As a genera rule, when organizations sense that valued resources are scarce, they will use the strategies. The dissimilarity reflects the difference between responding to the need for information rather than to the need for resources.

ESTABLISHING INTER ORGANIZATIONAL LINKAGES

Ownership, Companies use ownership to establish linkages when they buy part of or a controlling interest in another company. This gives the companies access to technology, products, or other resources it doesn't currently have. The communications and information technology industry has become particularly complex, and many companies have been teaming up worldwide.

A greater degree of ownership and control is obtained through acquisition or merger. An acquisition involves the purchase of one organization by another so that the buyer assumes control. A merger is the unification of two or more organizations into a single unit. In the world of e- business, US Web and CKS Group merged to crate a company that pulls in more than quarter of a billion dollars by helping companies set up and run internet divisions. Its clients include the dot-com divisions of companies such as Apple, NBC, and Levi Strauss. The creation of Pharmacia & Upjohn Inc. from the Upjohn Co. of Kalamazoo, Michigan, and Sweden' Pharmacia was a merger. Acquisition occurred when Hewlett-Packard bought VeriFone and when America Online purchased Netscape Communications. These forms of ownership reduce uncertainty in an area important to the acquiring company.

Formal Strategic Alliances: When there is a high level of complementarities between the business lines, geographical positions, or skills of two companies, the firms often go the route of a strategic alliance rather than ownership through merger or acquisitions. Such alliances are formed through contracts and joint ventures.

Contracts and joint ventures reduce uncertainty through a legal and binding relationship with another firm. Contracts come in the form of license agreements that involve the purchase of the right to use an asset (Such as a new technology) for a specific time and supplier arrangements that contract for the sale of one firm's output to another. Contracts and provide long-term security by tying customers and suppliers to specific amounts and prices. For example, McDonald's contract for an entire crop of russet potatoes to be certain of its supply of French fries. McDonald's also gains influence over suppliers through these contracts and has changed the way farmers grow potatoes and the profit margins they earn, which is consistent whit the resources dependence perspective. Large retailers such as Wal-Mart, Kmart, Toys 'R' Us, and Home Depot are gaining so much clout that they can almost dictate contracts telling manufacturers what to make, how to make it, and how much to charge for it. For example, CD companies edit songs and visual covers to cut out "offensive material" in order to get their production on the shelves of Wal-Mart, which sells more than 50 million CDs annually. As one manufacturing rep put it, "most suppliers would do absolutely anything to sell Wal-Mart. Joint ventures result in the creation of a new organization that is formally independent of the parents, although the parents will have some control. In a joint venture, organizations share the risk and cost associated with large projects or innovations. As described in the opening case, Barnesandnobel.com is a joint venture between Barnes & Noble and Germany's Bertelsmann AG Barnes & Noble and Bertelsmann have agreed to invest $ 100 million each and share the risks of the joint venture as it battles Amazon.com in the world of online bookselling.

Cooperation, Interlocking, Directorates: Cooptation occurs when leaders from important sectors in the environment are made part of an organization. It takes place, for example, when influential customers or suppliers are appointed to the board of directors, such as when the senior executive of a bank sits on the board of a manufacturing company. As a board member, the banker may become psychologically co-opted into the interests of manufacturing firms. Community leaders also can be appointed to a company's board of directors or to other organizational committees or task forces. These influential people are thus introduced to the needs of the company and are more likely to include the company's interests in their decision making.

An interlocking directorate is a formal linkage that occurs when a member of the board of directors of one company sits on the board of directors of another company. The individual is a communications link between companies and can influence policies and decisions. Internet startups, such as the Seattle-based companies Tec Wave, Accounting Net, and Honk worm International, often use this strategy to share advice and resources. When one individual is the link between two companies, this is typically referred to as a direct interlock. An indirect interlock occurs when a director of company A and a director of company B are both directors of company C. they have access to one another but do not have direct influence over their respective companies. Recent research show

that, as a firm's financial fortunes decline, direct interlocks with financial institutions increase. Financial uncertainty facing an industry also has been associated with greater indirect interlocks between competing companies.

Executive Recruitment: Transferring or exchanging also offers a method of establishing favorable linkages with external organizations. For example, each year the aerospace industry hires retired generals and executives from the department of defense. These generals have personal friends in the department, so the aerospace companies obtain better information about technical specifications, prices, and dates for new weapon systems. They can learn the needs of the defense department and are able to present their case for defense contracts in more effective way. Companies without personal contacts find it nearly impossible to get a defense contract. Having channels of influence and communication between organizations serve to reduce financial uncertainty and dependence for an organization.

Advertising and Public Relation:. A traditional way of establishing favorable relationships is through advertising. Organizations spend large amounts of money to influence the taste of consumers. Advertising is especially important in highly competitive consumer industries and in industries that experience variable demand. In the fashion industry, once – stodgy JCPenney turned its Arizona Jeans into one of the hottest brands around through hip advertising featuring rock music and internet imagery. A recent ad campaign show teens mocking ads that attempt to speak their language, ending with the tagline "Just show me the jeans."

Public relations are similar to adverting, except that stories often are free and aimed at public opinion. Public relations people cast an organization in a favorable light in speeches, in press reports, and on television, public relations attempts to shape the company's image in the minds of customers, suppliers, and government officials, for example, in an effort to survive in this antismoking era, tobacco companies have launched an aggressive public relations campaign touting smokers' rights and freedom of choice.

Summary: Organization can use variety of techniques to establish favorable linkages that ensure the availability of scarce resources. Linkage provides control over vulnerable environmental elements. Strategic alliances, interlocking directorates, and outright ownership provide mechanisms to reduce resources dependency on the environment. U.S. companies such as IBM, Apple, AT&T, and Motorola have been quick in recent years to turn rivalry into partnership. Perhaps surprisingly, Japan's electronics companies have been slower to become involved in joint ventures and other strategic alliances. Toshiba, however, has been living in the age of high – tech alliances for years and has the competitive edge to show for it.

Toshiba illustrates how linkages can be used to control resources and reduce dependency. The other major strategy companies can use to manage resources dependency is to control or redefine the external environment domain.

CONTROLLING THE ENVIRONMENTAL DOMAIN
In addition to establishing favorable linkages to obtain resources, organizations often try to change the environment. There are four techniques for influencing or changing a firm's environmental domain.

Change of Domain: The organization decides which business it is in, the market to enter, and the suppliers, banks, employees, and location to use, and this domain can be changed. An organization can seek new environmental relationships and drop old ones. An organization may try to find a domain where there is little competition, no government regulation, abundant suppliers, affluent customers, and barriers to keep competitors out.

Acquisition and divestment are two techniques for altering the domain Canada's Bombardier, maker of Ski-Doo snowmobiles, began a series of acquisitions to alter its domain when the energy crisis of the mid 1970s nearly wiped out the snowmobile industry. CEO Laurent Beaudoin gradually moved the company into the aerospace industry by negotiating deals to purchase Canadair, Boeing's de-Havilland unit, business – jet pioneer Learjet, and Short Brothers of Northern Ireland. Deere & Co. felt vulnerable with the declining customer base for agricultural machinery, so Chairman and CEO Hans Becherer began reallocating resources into other lines of business, such as health care and financial services. Entering these domains is helping Deere weather uncertain times and takes some pressure off the machinery business. An example of divestment is when Sears redefined its domain by selling off its financial services divisions, including Coldwell Banker, Allstate, and Dean Witter, to focus the company on retailing.

Political Activity, Regulation: Political activity includes techniques to influence government legislation and regulation. For example, General Motors used political activity to successfully settle a battle with the U.S. transportation Department over the safety of some of its pickup trucks; the settlement requires that GM spend $51 million on safety programs over a five-year period but saved the company the cost of a $ 1 billion recall.

In one technique, organizations pay lobbyists to express their views to members of federal and state legislatures. In the telecommunications industry, the Baby Bells hired powerful lobbyists to influence a sweeping new telecommunications bill giving local phone companies access to new markets. Many CEOs however, believe they should do their own lobbying. CEOs have easier access than lobbyists and can be especially effective when they do the politicking. Political activity is so important that "informal lobbyist" is an unwritten part of almost any CEO's job description.

Political strategy can be used to erect regulatory barriers against new competitors or to squash unfavorable legislation. Corporations also try to influence the appointment to agencies of people who are sympathetic to their needs. The value of political activity is illustrated by the efforts of Sun Microsystems and Netscape to persuade the Justice Department to break up Microsoft, arguing that Microsoft had acted as monopoly in controlling the software industry and now threatened to extend that power to internet access. Some observers noted that if Microsoft had paid more attention to political lobbying earlier, it could have avoided Justice Department investigation.

Trade Associations: Much of the work to influence the external environment is accomplished jointly with other organizations that have similar interest. Most manufacturing companies are part of the National Association of Manufacturers and also belong to associations in their specific industry. By pooling resources, these organizations can pay people to carry out activities such as lobbying legislators, influencing new regulations, developing public relations campaigns, and making campaign contributions, for example, the National tooling and Machining Association (NTMA) devotes a quarter of a million dollar each year to lobbying, mainly on issues that affects small business, such as taxes, health insurance, or government mandates. NTMA also gives its members statistics and information that help them become more competitive in the global marketplace.

Illegitimate Activities: Illegitimate activities represent the final technique companies sometimes use to control their environmental domain. Certain conditions, such as low profits, pressure from senior managers, or scarce environmental resources, may lead managers to adopt behaviors not considered legitimate. Many well-know companies have been found guilty of behavior considered unlawful. Example behaviors include payoffs to foreign governments, illegal political contributions, promotional gifts, and wiretapping. Intense competition among cement producers and in the oil business during a period of decline led to thefts and illegal kickbacks. In the defense industry, the intense competition for declining contracts for major weapon systems led some companies to do almost anything to get an edge, including schemes to peddle inside information and to pay off officials. One study found that companies in industries with low demand, shortages, and strikes were more likely to be convicted for illegal activities, implying that illegal acts are an attempt to cope with resources scarcity. In another study, social movement organizations such as Earth First and the AIDS Coalition to Unleash Power (Act Up) were found to have acted in ways considered illegitimate or even illegal to bolster their visibility and reputation.

ORGANIZATIONAL ECOSYSTEMS

ORGANIZATION – ENVIRONMENT INTEGRATIVE FRAME WORK
One theme is that the amount of complexity and change in an organization's domain influences the need for information and hence the uncertainty felt within an organization. Greater information uncertainty is resolved through greater structural flexibility, and the assignment of additional departments and boundary roles. When uncertainty is low, management structures can be more mechanistic, and the number of departments and boundary roles can be fewer. The second theme pertains to the scarcity of material and financial resources. The more dependent an organization is on other organizations for those resources, the more important it is to either establish favorable linkages with those organizations or control entry into the domain. If dependence on external resources is low, the organization can maintain autonomy and does not need to establish linkages or control the external domain.

POPULATION ECOLOGY
This section introduces a different perspective on relationships among organizations. The population ecology perspective differs from the other perspectives because if focuses on organizational diversity and adaptation within a population or organizations. A population is a set of organization engaged in similar activities with similar patterns of resource utilization and outcomes. Organizations within a population compete for similar resources or similar customers, such as financial institutions in the Seattle area.

Within a population, the question asked by ecology researchers is about the large number and variation of organizations in society. Why are new organizational forms constantly appearing that create such diversity? Their answer is that individual organizational adaptation is severally limited compared to the changes demanded by the environment. Innovation and change in a population of organizations take place through the birth of new forms and kinds of organizations more so than by the reform and change of existing organizations. Indeed, organizational forms are considered relatively stable, and the good of a whole society is served by the development of new forms of organization through entrepreneurial initiatives. New organizations meet the new needs of society more so than established organizations that are slow to change.

What does this theory mean in practical terms? It means that large established organizations often become dinosaurs. Established companies such as Toys "R" Us and Barnes & Nobel, for example, have had tremendous difficulty adapting to a rapidly changing environment. Hence, new organizational forms that fit the current environment will emerge, such as e Toys and Amazon.com that fill a new niche and overtime take away business from established companies. Large, established companies are finding it nearly impossible to make the shift to an internet-based business model.

Why do established organizations have such a hard time adapting to a rapidly changing environment? Michael Hannan and Johan Freeman, Originators of the population ecology model of organization, argue that there are many limitations on the ability of organizations to change. The limitations come from heavy investment in plant, equipment, and specialized personnel, limited information, established viewpoints of decision makers, the organization's own successful history that justifies current procedures, and the difficulty of changing corporate culture. True transformation is a rare and unlikely event in the face of all these barriers.

At this very moment, new organizational forms are emerging. Consider the changing gas station. Two decades ago, gas stations sold gas and maybe offered auto repair. Today, most gas pumps are located in front or convenience stores where customers can pick up a six –pack or buy a loaf of bread and gallon of mil. Some stores are quite large, often including a deli or doughnut shop. Now, a new organizational form is emerging that that includes multiple stores on one site—for example, a gas station, a fast – food restaurant, and a dry cleaner, in today's fast – paced world, customers want convenience on a level not even considered in the 1970s. In the travel industry, which was once dominated by a few large carriers, low –fare airlines such as Southwest Airlines in the United States, West Jet in Canada, Go Fly Ltd. in Britain, and Ryanair in Ireland are taking business away from the faints. Another recent change is the development of corporate universities within large companies like Motorola and Fedex. There are more than one thousand corporate universities, compared to just two hundred a few years ago. One Reason they've developed so fast is that companies can't get desired services from established universities, which are too stuck in traditional ways of thinking and teaching.

According to the population ecology view, when looking at an organizational population as a whole, the changing environment determines which organizations survive or fail. The assumption is that individual organizations suffer

from structural inertia and find it difficult to adapt to environmental changes. Thus, when rapid change occurs, old organization are likely to decline or fail, and new organizations emerge that are better suited to the needs of the environment.

Currently, huge AT&T is working hard to renew itself in the rapidly changing telecommunications world. A part of this strategy was the appointment of a new chief executive, Michael Armstrong, to replace long-time CEO Robert Allen. Based on the history of telephone companies, population ecology researchers would say that successful change is unlikely for example, in the early 1900s.

When the telephone industry was new, over four hundred telephone companies existed Pennsylvania alone. Most used magneto technology, which means each telephone, carried its own battery. A major innovation was a common battery --- a power source located within the central office used for voice transmission among all telephones connected there. This was a powerful innovation, but most phone companies failed to adapt. Thus as the common battery became more popular, the magneto-based companies went out of business. Over the years consolidation occurred until only a few phone companies are left, and now AT&T, the dominant long –distance carrier, may be in the twilight of its dominance.

The population's ecology model is developed from theories of natural selection in biology, and the terms evaluation and selection are used to refer to the underlying behavioral processes. Theories of biological evolution try to explain why certain life forms appear and survive are typically best fitted to the immediate environment.

In 1987, Forbes magazine reported a study of American businesses over seventy years, from 1917 to 1987. Do you recall Baldwin Locomotive, Studebakers, or Lehigh Coal & Navigation? These companies were among 78 percent of the top one hundred in 1917 that did not see 1987. Of the twenty – two that remained in the top one hundred, only eleven did so under their original names. The environment of the 1940s and 1950s was suitable to Woolworth, but new organizational forms like Wal-Mart and Kmart became dominant in the 1980s. In 1917, most of the top one hundred companies where huge steel and mining industrial organizations, which were replaced by high – technology companies such as IBM and Merck. Two companies that seemed to prosper over a long period were Ford and General Motors, but they are now being threatened by world changes in the automobile industry. No company is immune to the processes of social change. From just 1979 to 1989, 187 of the companies on the fortune 500 list ceased to exist as independent companies. Some were acquired, some merged, and some were liquidated. Meanwhile, technology was changing the environment again. Cellular phone technology made Qualcomm a major player in the 1990s. And the internet explosion made millionaires out of many who bought America Online stock at $ 0.36 a share when it went public in 1992. In just a few years, AOL went from being just a good idea to being a Fortune 500 power house.

ORGANIZATIONAL FORM AND NICHE
The population ecology model is concerned with organizational forms, organizational form is an organization's specific technology, structure, products, goals, and personnel, which can be selected or rejected by the environment. Each new organization tries to find a niche (a domain of unique environmental resources and needs) sufficient to support it. The niche is usually small in the early stages of an organization but may increase in size over time if the organization is successful. If a niche is not available, the organization will decline and may perish.

From the viewpoint of a single firm, luck, chance, and randomness play important t parts in survival. New products and ideas are continually being proposed by both entrepreneurs and large organizations. Whether these ideas and organizational forms survive or fail is often a matter of chance – whether external circumstances happen to support them. A woman who started a small electrical contracting business in a rapidly growing Florida community would have an excellent chance of success. If the same woman were to start the same business in a declining community else where in the United States, the chance of success would be far less. Success or failure of a single firm thus is predicted by the characteristics of the environment as much as by the skills or strategies used by the origination.

PROCESS OF ECOLOGICAL CHANGE
The population ecology model assumes that new organizations are always appearing in the population. Thus, organization populations are continually undergoing change. The process of change in the population is defined by three principles that occur in stages; variation, selection, and retention. These stages are summarized below:

- Variation, New Organizational forms continually appear in a population of organizations. They are initiated by entrepreneurs, established with venture capital by large corporations, or set up by a government seeking to provide new services. Some forms may be conceived to cope with a perceived need in the external environment. In your

own neighborhood, for example, a new restaurant may be started to meet a perceived need. In recent years, a large number of new firms have been initiated to develop computer software, to provide consulting and other services to large corporations, and to develop products and technologies for internet commerce. Other new organization produce a traditional product such as steel, but do it using minimal technology and new management techniques that make the new steel companies such as Nucor far more able to survive. Organizational variation is analogous to mutations in biology, and they add to the scope and complexity of organizational forms in the environment.

• Selection. Some variations will suit the external environment better than others. Some prove beneficial and thus are able to find a niche and acquire the resources from the environment necessary to survive. Other variation fails to meet the needs of the environment and perish. When there is insufficient demand for a firm's product and when insufficient resources are available to the organizations, that organization will be "selected out." Only a few variations are "selected in" by the environment and survive over the long term.

• Retention. Retention is the preservation and institutionalization of selected organizational forms. Certain technologies, product, and services are highly valued by the environment. The retained organizational form may become a dominant part of the environment. Many forms of organization have been institutionalized, such as government, schools, churches, and automobile manufacturers. McDonald's, which owns a huge share of the fast – food market and provides the first job for many teenagers, has become institutionalized in American life.

• Institutionalized organization likes McDonald's Seem to be relatively permanent features in the population of organizations, but they are not permanent in the long run. The environment is always changing, and, if the dominant organizational forms do not adapt to external change, they will gradually diminish and be replaced by other organizations. Taco Bell captured some of McDonald's customers because the Mexican fast – food chain kept lowering prices while McDonald's consistently raised them. Unless it adapts, McDonalds might no longer be price – competitive in the fast – food market.

From the population ecology perspective, the environment is the important determinant of organizational success or failure. The organizational must meet an environmental leads to the establishment of new organizational forms in a population of organization.

STRATEGIES FOR SURVIVAL
Another principle that underlies the population ecology model is the struggle for existence, or competition. Organizations and populations of organizations are engaged in a competitive struggle over resources, and each organizational form is fighting to survive. The struggle is most intense among new organizations, and both the birth and survival frequencies of new organizations are related to factors in the larger environment. Factors such as size of urban area, percentage of immigrants, political turbulence, industry growth rate, and environmental variability have influence enced the launching and survival of newspapers, telecommunications firms, rail-roads, government agencies, labor unions, and even voluntary organizations.

In the population ecology perspective, generalist and specialist strategies distinguish organizational forms in the struggle for survival. Organizations with a wide niche or domain, that is, those that offer a broad range of products or services or that serve a broad market, are generalist, organizations that provide a narrower range of goods or services or that serve a narrower market are specialists.

In the natural environment, a specialist form of flora and fauna would evolve in protective isolation in a place like Hawaii, where the nearest body of land is two thousand miles away. The flora and fauna are heavily protected. In contrast, a place like Costa Rica, which experienced wave after wave of external influences, developed a generalist set of flora and fauna that has better resilience and flexibility for adapting to a broad range of circumstances. In the business world, Amazon.com started with a specialist strategy, selling books over the internet, but evolved to a generalist strategy with the addition of music, video, greeting cards, and other products, plus links to sites selling drugstore goods, pet supplies, and flowers. A company such as Olmec Corporation, which sells African American and Hispanic dolls, would be considered a specialist, whereas Mattel is generalist, marketing a broad range of toys for boys and girls of all ages.

Specialists are generally more competitive than generalists in the narrow area in which their domains overlap. However, the breadth of the generalist's domain serves to protect it somewhat from environmental changes. Though demand may decrease for some of the generalist's products or services, it usually increases for others at the same time. In addition, because of the diversity of products, services, and customers, generalists are able to reallocate resources internally to adapt to a changing environment, whereas specialists are not. However, because specialists are often smaller companies, they can sometimes move faster and be more flexible in adapting to a changing environment.

Managerial impact on company success often comes from selecting a strategy that steers a company into an open niche in the environment. Charles Schwab Corp. was established and became successful by creating a new niche for discount brokerage houses. More recently, Schwab managers spotted an open niche based on on-line securities trading, helping the company grab the lion's share in a new market.

INSTITUTIONALISM.

The institutional perspective provides yet another view of inter organizational relationship. Organizations are highly interconnected. Just as companies need efficient production to survive, the institutional view argues that organizations need legitimacy from their stakeholders. Companies perform well when they are perceived by the larger environment to have a legitimate right to exist. Thus, the institutional perspective describes how organizations survive and succeed through congruence between an organization and the expectations from its environment. The institutional environment is composed of norms and values from stakeholders (customers, investors, associations, broads, government, collaborating organizations) thus the institutional view believes that organizations adopt structures and processes to please outsiders, and these activities come to take on rule like status in organizations. The institutional environment   reflects what the greater society views as correct ways of organizing and behaving.

Legitimacy is defined as the general perspective that organizations actions are desirable, proper, and appropriate within the environment's system of norms, values and beliefs. Institutional theory thus is concerned with the set of intangible norms and values that shape behavior, as opposed to the tangible elements of technology and structure. Organizations must fit within the cognitive and emotional expectations of their audience. For example, people will not deposit money in a bank unless it sends signals of safety and compliance with norms of wise financial management.

Another example is the widespread interest among business firms in the annual Fortune magazine survey that ranks corporations based on their reputation. Consider also your local government and whether it could raise property taxes for increased school funding if community residents did not approve of the school district's policies and activities. The Soviet Union collapsed and communism quickly disappeared because communism held little legitimacy in the minds of citizens in Russia and Eastern Europe. Just as important, when Westerners tired to construct to market – based economy in Russia, those efforts failed because citizens did not have a mental framework that saw competitive organizations as legitimate. Gradually institutions will grow and flourish in Russia consistent with the value held in the larger culture.

The institutional view also sees organizations as having two essential dimensions – technical and institutional. The technical dimension is the day–to-day work technology and operating requirements. The institutional structure is that part of the organization most visible to the outside public. Moreover, the institutional dimension is governed by expectations from the external environment. As a result of pressure to do things in a proper and correct way, the formal structures of many organizations reflect the expectations and values of the environment rather than the demand of work activities. This means that an organization may incorporate positions or activities (equal employment officer, e-commerce division) perceived as important by the larger society and thus increase its legitimacy and survival prospects, even though these elements may decrease efficiency. Compaq Computer Corp's board ousted CEO Eckhard Pfeiffer because he was unwilling to cut out the company's distributors and sell computers directs online, having a dot – com division is perceived as essential by the larger society today. The formal structure and design of an organization may not be rational with respect to work flow and products or services, but it will assure survival in the larger environment.

Organizations adapt to the environment by signaling their congruence with the demands and expectations stemming from norms, standards set by professional bodies, funding agencies, and customer, structure is something of a façade disconnected from technical work though which the organizations obtains approval, legitimacy, and continuing support. The adoption of structures thus may not linked to actual production needs, and may occur regardless of whether specific internal problems are solved. Formal structure is separated from technical action in this view.

INSTITUTIONAL SIMILARITY

Organizations have a strong need to appear legitimate. In so doing, many aspects of structure and behavior may be targeted toward environmental acceptance rather than toward internal technical efficiency. Inter organizational relationships thus are characterized by forces that cause organizations in a similar population to look like one another. Institutional similarity, called institutional isomorphism in the academic literature, is the emergence of a

common structure and approach among organizations in the same field. Isomorphism is the process that causes one unit in a population to resemble other units that face the same set of environmental conditions.

Exactly how does increasing similarity occur? How are these forces realized? A summary of three mechanisms for institutional adaptation are summarized below. There are three core mechanisms; mimetic forces, which result from response to uncertainty, normative forces, which result from common training and professionalism, and coercive forces, which stem from political influence.

Mimetic Forces: Most organizations especially business organizations, face great uncertainty. It is not clear to senior executives exactly what products, services, or technologies will achieve desired goals, and sometimes the goals themselves are not clear. In the face of this uncertainty mimetic forces occur, which is the pressure to copy or model other organizations.

Executives see an innovation in a firm generally regarded as successful, so the management practice is quickly copied. This modeling is done without any clear proof that performance will be improved. Mimetic Processes explain why fads and fashions occur in the business world. Once a new idea starts, many organizations grab onto it, only to learn that the application is difficult and may cause more problems that is solves. This was the case with the recent frenzy around reengineering and the merger wave that swept many industries. Of course there were successes reported in both instances but also a large number of failures. Techniques such as job enrichment, total quality management, and the balanced scorecard have all been adopted without clear evidence for efficiency or effectiveness. The one certain benefit is that management's feelings of uncertainty will be reduced, and the company's image will be enhanced because the firm is seen as using the latest management techniques.

Three Mechanisms for institutional Adaptation

	Mimetic	**Coercive**	**Normative**
Reason to become similar	Uncertainty	Dependence	Duty obligation
Events	Innovation, Visibility	Political law, Rules, Sanctions	Professionalism, Certification, Accreditation
Social basis	Culturally Supported	Legal	Moral
Example	Reengineering, Benchmarking	Pollution Controls, School regulations	Accounting standards Training

Perhaps the clearest example, of official copying is the technique of bench-marking that occurs as part of the total quality movement. Benchmarking means identifying 'who is best' at something in an industry and then duplicating the technique for creating excellence, perhaps even improving it in the process. Rank Xerox, the subsidiary of Xerox that sells copiers in Europe, uses benchmarking to find out what competitors are doing and then copies the best techniques.

The Mimetic Process works because organization face continuous high uncertainty, they are aware of innovations occurring in the environment, and the innovations are culturally supported, thereby giving legitimacy to adopters. This is a strong mechanism by which a group of banks, or high schools, or manufacturing firms begin to look and acts like one another.

Coercive Forces: All organizations are subject to pressure, both formal and informal, from government, regulatory agencies, and other important organizations in the environment, especially those on which a company is dependent. Coercive forces are the external pressures exerted on organizations to adopt structures, techniques, or behaviors similar to other organizations. Some pressures may have the force of law, such as government mandates to adopt new pollution control equipment. Health and safety regulations may demand that a safety officer be appointed. Due to increasing political pressure at the local, state, and national levels, more than twenty gun manufacturers recently adopted a policy of installing child safety locks on handguns. As with other changes, those brought about because of coercive forces may not make the organization more effective, but it will "look" more effective and will be accepted as legitimate in the environment.

Coercive pressures often occur between organizations where there is a power difference. It is not unusual for a large retailer like Wal-Mart or a manufacture like General Motors to insist on certain policies, Procedures, and techniques used by it suppliers. When Honda picked Donnelly Corporation to make all the mirrors for its U.S. manufactured cars, Honda insisted that Donnelly empower its workers. Because Donnelly had already taken major steps in this direction, it won the contract, unless an organization know how to foster collaborative relationship internally, Honda believes the company won't be good at making a partnership work between the two companies.

Organizational changes that result from coercive forces occur when an organization is dependent on another, when there are political factors such as rules, laws, and sanctions involved, or when some other contractual or legal basis defines the relationship. Organizations operating under those constrains will adopt changes and relate to one another in a way that increases homogeneity and limits diversity.

Normative Forces: The third reason organizations change according to the institutional view is normative. Normative forces mean that organizations are expected to change to achieve standards of professionalism, and to adopt techniques that are considered by the professional community to be up to date and effective. Changes may be in any area, such as information technology, accounting requirements, or marketing techniques. Professionals share a body of formal education based on university degrees and professionals share a body of formal education based on university degrees and professional networks through which ideas are exchanged by consultants and professional leaders. Universities, consulting requirements firms, and professional training institutions develop norms among professional mangers. People are exposed to similar training and standards, and adopt shared values, which are implemented in organizations with which they work. Business schools teach finance, marketing, and human resource major that certain techniques are better than others, so using those techniques becomes a standard in the fields. In one study, for example, a radio station changed from a functional to a multidivisional structure because a consultant recommended it as a "Higher standard" of dong business. There was no proof that his structure was better, but the radio station wanted legitimacy and to be perceived as fully professional and up to date in its management techniques. As another example, studies show great homogeneity among superintendents in the U.S Public school system and among board members of Fortune 500 Companies. Through education and experience, people are subjected to considerable pressure to gain legitimacy by acting exactly the same way as people already in those positions.

Companies accept normative pressure to become like one another through a sense of obligation or duty to high standards of performance based on professional norms shared by managers and specialist in their respective organizations. These norms are conveyed through professional education and certification and have almost a moral or ethical requirement based on the highest standards accepted by the profession at that time.

A company may use any or all of the mechanisms of mimetic, coercive, or normative forces to change itself for greater legitimacy in he institutional environment. Firms tend to use these mechanisms when they are acting under conditions of dependence, uncertainty, ambiguous goals, and reliance on professional credentials. The outcome of these processes is that organizations become far more homogeneous that would be expect from the natural diversity among managers and environment.

Inter organizational relationships are the relatively enduring resource transactions, flows, and linkages that occur among two or more organizations. Traditionally, these transactions and relationships have been seen as a necessary evil to obtain what an organization needs. The presumption has been that the world is composed of distinct businesses that thrive on autonomy and compete for supremacy. A company may be forced into inter organizational relationships depending on its needs and the stability of the environment.

A new view described by James Moore argues that organizations are now evolving into business ecosystems. An organizational ecosystem is a system formed by the interaction of a community of organization and their environment. An ecosystem cuts across traditional industry, lines. A company can create its own ecosystem. Microsoft travels in four major industries: consumer electronics, information, communications, and personal computers. Its ecosystem also includes hundreds of suppliers, including Hewlett-Packard and Intel, and millions of customers across many markets. Traditional boundaries are dissolving. Circuit City uses its expertise gained from selling televisions and stereos to sell used cars. Shell Oil is the largest seller of packaged sausages in the Scandinavian countries.

Wal-Mart rated an ecosystem based on well-known brands and low prices in rural and small markets. Today, Wal-Mart cannot be categorized simply as retailer. It is also a wholesaler, a logistics company, and an information services company. Wal-Mart, like other business ecosystems, develops relationships with hundreds of organizations cutting across traditional business boundaries.

IS COMPETITION DEAD?
No company can go it alone under a constant onslaught of international competitors, changing technology, and new regulations. Thus competition, which assumes a distinct company competing for survival and supremacy with other stand-alone businesses, no longer, exists. In that sense competition is dead. However, most managers recognize that

the competitive stakes are higher than ever in a world where market share can crumble overnight and no industry is immune from almost instant obsolescence. In today's world, a new form of competition is in fact intensifying.

For one thing, company's new needs to co evolve with others in the ecosystem so that everyone gets stronger. Consider the wolf and the caribou. Wolves cull weaker caribou, which strengthens the herd. A strong herd means that wolves must become stronger themselves. With co evolution, the whole system becomes stronger. In the same way, companies co evolve through discussion with each other, shared visions, alliances, and managing complex relationships, as we saw with Cisco Systems and its partners in the opening case. The words of British biologist Brain Goodwin apply to today's businesses as well to nature. "Companies has no special status… what is important is the pattern of relationships and interactions that exist and how they contribute to the system as an integrated whole.

Conflict and cooperation often exist at the same time. In New York City, Time Warner refused to carry Fox's twenty – four news channel on its New York City cable systems. The two companies engaged in all- out conflict, however, masked a simple fact: the two companies can't live without each other. Fox and Time Warner are wedded to one another in separate business deals around the world. They will never let the local competition in New York upset their larger inter dependence on a global scale. Mutual dependencies and partnerships have become a fact of life in business ecosystems. Companies no longer operate autonomously or with a single voice. A senior executive at Dream Works sued Disney. But that hasn't stopped Disney's ABC network from acquiring television shows from Dream Works. Companies today may use their strength to win conflicts and negotiations, but ultimately cooperation carries the day.

THE CHANGING ROLE OF MANAGEMENT

Within business ecosystems managers learn to move beyond traditional responsibilities of corporate strategy and designing hierarchical structures and control system. If a top manager looks down to enforce order and uniformity, the company is missing opportunities for new and evolving external relationship. In this new world, managers think about horizontal processes rather than vertical structures. Important initiatives are not just top down; they cut across the boundaries separating organizational units. Moreover horizontal relationships now include linkages with suppliers and customers, who become part of the team. Business leaders can learn to lead economic co evolution. Managers learn to see and appreciate the rich environment of opportunities that grow from cooperative relationships with other contributors to the ecosystem. Rather than trying to force suppliers into low prices or customers into high prices, mangers strive to strengthen the larger system evolving around them, finding ways to understand this big picture and how to contribute.

This is a broader leadership role than ever before. For example, Harry Brown, president of EBC industries(formerly Erie Bolt Corp.) formed a network with about fifty of his company's competitors to jointly market their skills and capabilities and acquire business that none of the companies could possibly get alone. They share information about quality systems, consult one another before investing in machinery, use one another's sales reps, and even pass on customers to one another. Although members of the network still compete in some areas, cooperation often increases revenues, reduces costs, and improves quality. For example, Brown works with a machine shop in Buffalo to produce metal studs because the combined expertise of the two companies results in larger profit margins for both companies and a higher – quality product for the customer. However, the two companies bid competitively on other jobs for which each has the ability to produce a quality product efficiently.

INTER ORGANIZATIONAL FRAMEWORK

Understanding this larger organizational ecosystem is one of the most exiting areas of organization theory. The models and perspectives for understanding inter organizational relationships ultimately help managers change their role from top-down management to horizontal management across organizations. Relationships among organizations can be characterized by whether the organizations are dissimilar or similar, and whether relationships are competitive or cooperative. By understanding these perspectives, managers can assess their environment and adopt strategies to suit their needs. The first perspective is called resource dependence theory, which was briefly described in earlier. It describes rational ways organizations deal with each other to reduce dependence on the environment. The second perspective is about collaborative networks, wherein organizations allow themselves to become dependent on other organizations to increase value and productivity for both. The third perspective is population ecology, which examines how new organizations fill niches left open by established organizations, and how a rich variety of new organizational forms benefit society. The final approach is called institutionalism and explains why and how organizations legitimate themselves in the larger environment and design structures by borrowing ideas from each other.

RESOURCE DEPENDENCE

Resource dependence represents the traditional view of relationships among organizations. Resource dependence theory argues that organizations try to minimize their dependence on other organizations for the supply of important resources and try to influence the environment to make resources available. Organizations succeed by striving for independence and autonomy. When threatened by grater dependence, organizations will assert control over external resources to minimize that dependence. Resources dependence theory argues that organizations do not want to become vulnerable to other organizations because of negative effects on performance.

The amount of dependence on a resource is based on two factors. First is the importance of the resource to the firm, and second is how much discretion or monopoly power those who control a resource have over its allocation and use. For example, a Wisconsin manufacturer made scientific instruments with internal electronics. It acquired parts from a supplier that provided adequate quality at the lowest price. The supplier was not involved in the manufacturer's product design but was able to provide industry-standard capacitors at fifty cents each. As industry standards changed, other suppliers of the capacitor increased to $2 each. The Wisconsin firm had no choice but to pay the higher price. Within eighteen months, the price of the capacitor increased to $ 10 each, and then the supplier discontinued production altogether. Without capacitors, production came to a halt for six months. The scientific instruments manufacturer allowed itself to become dependent on a single supplier and made no plans for redesign to use substitute capacitors or to develop new suppliers. A single supplier had sufficient power to increase price beyond reason and to almost put the Wisconsin firm out of business.

Organizations aware of resource dependence tend to develop strategies to reduce their dependence on the environment and learn how to use their power differences.

RESOURCE STRATEGIES

When organizations feel resource or supply constraints, the resources dependence perspective says they maneuver to maintain their autonomy through a variety of strategies. One strategy is to adapt to or alter the interdependent relationships. This could mean purchasing ownership in suppliers, developing along – term contracts or joint ventures to lock in necessary resources, or building relationships in other ways. For example, interlocking directorships occur when boards of directors include members of the boards of supplier companies. Organizations may join trade associations to coordinate their needs, sign trade agreements, or merge with another firm to guarantee resource and material supplies. Some organizations may take political actions, such as lobbying for new regulations or deregulation, favorable taxation, tariffs, or subsidies, or push for new standards that make resource acquisition easier. Organizations operating under the resource dependence philosophy will do whatever is needed to avoid excessive dependence on the environment to maintain control of resources and hence reduce uncertainty.

POWER STRATEGIES

In resource dependence theory, large, independent companies have power over small suppliers. For example, power in consumer products has shifted from vendors such as Rubbermaid and Procter & Gamble to the big discount retail chains such as Wal-Mart and Kmart. In manufacturing, behemoths like General Electric and Ford can account for 10 to 50 percent of many suppliers revenue, giving the large company enormous power. For example, General Electric called in three hundred suppliers to its appliance divisions and told them they must slash costs by 10 percent. Similarly, health maintenance organizations have growing power to dictate terms to pharmaceutical companies because they may account for 40 percent or more of a drug maker's U.S. sales. Group Health Cooperative of Puget Sound ordered its doctors to stop prescribing all but an essential handful of drugs from Merck and Pfizer because the two drug makers refused to discount their prices. The Seattle-Based HMO instead began using equivalent drugs from rival suppliers who were willing to cut prices 10 to 20 percent. The loss in revenues promoted Merck's president to personally visit Group Health and begin offering discounts. When one company has power over another, it can ask suppliers to absorb more costs, ship more defiantly, and provide more services than ever before, often without a price increase. Huge automakers like General Motors expect their suppliers to provide a broad range of services in one-stop shopping fashion while also meeting specific quality standards, such as ISO 9000 specifications. Often the suppliers have no choice but to go along, and those who fail to do so may go out of business.

COLLABORATIVE NETWORKS

North American companies typically have worked alone, competing with each other and believing in the traditional of individualism and self-reliance. Today, however, thanks to an uncertain international environment, realignment in corporate relationships is taking place. The collaborative network perspective is an emerging alternative to resource dependence theory. Companies join together to become more competitive and to share scarce resources. As a new

wave of technology based on digital communications builds, for example computer manufacturers, local phone companies, cable television operators, cellular phone companies, and even water and gas utilities have teaming up. Biotechnology companies collaborate to share resources and knowledge and spur innovation. Consulting firms, investment companies, and accounting firms may join in an alliance to meet customer demands for expanded services. As companies move into their own uncharted territory, they are also racing into alliances as a way to share risks and cash in on rewards. In many cases companies are learning to work closely together. Consider the following example.

- AT&T is reaching out everywhere these days, dropping its traditional do-it from –scratch approach to team up with such major, established companies as Comcast Communications and Cisco Systems, as well as small pioneering companies, ensconcing itself in almost every corner of the rapidly changing communications industry.

- Large computer and software companies such as IBM, Sun Microsystems, and Microsoft are joining forces with small e-commerce companies. The large firms get access to innovative new technology and markets, while the emerging companies gain the benefit of the large firm's financing and marketing capabilities.

- With corporate research budgets under pressure and technologies increasingly complex, the hottest R&D trend is collaboration. Companies are figuring out how to fruitfully connect with outside experts in other companies, consortiums, universities, and government labs. G.E Aircraft Engines teamed up with archrival Pratt & Whitney to share the $ 1 billion cost of designing a new jet engine. Texas Instruments and Hitachi joined their semiconductor businesses to share the best design and engineering abilities of both companies.

- Small companies are banding together to compete against much larger firms. A group of seven wireless-telephone companies in the United States and Canada are jointly marketing digital wireless phone service to challenge such telecommunications giants as AT&T and Sprint Communications. Forty local microbreweries formed the Oregon Brewers Guild to gain the resources needed to compete against craft brews from Miller and Anheuser-Busch.

INTERNATIONAL ORIGINS

Why all this interest in inter organizational collaboration. Major reasons are sharing risks when entering new markets, mounting expensive new programs and reducing costs, and enhancing organizational profile in selected industries or technologies. Cooperation is a prerequisite for greater innovation, problem solving, and performance. In addition, partnerships are a major avenue for entering global markets, with both large and small firms developing partnerships overseas and in North America.

North Americans have learned from their international experience just how effective inter organizational relationships can be. Both Japan and Korea have long traditions of corporate clans or industrial groups that collaborate and assist each other. In Japan this grouping is called keiretsu. A keiretsu is a collection of companies that share holdings in one another, have interlocking boards of directors, and undertake joint ventures in long term business relationships. A keiretsu has long-term historical linkages through educational backgrounds of executives that literally create a family of companies. North Americans typically have considered interdependence a bad thing. Believing it would reduce competition. In a keiretsu, no single company dominates, and competition is fierce. It's as if the brothers and sisters of a single family went into separate businesses and want to outdo one another, but they still love one another and will help each other when needed. Companies in a keiretsu enjoy a safety net that encourages long-term investment and risk-taking for entering new markets and trying new technologies. The following story from Toyota illustrates how powerful and beneficial the keiretsu can be to Japanese companies.

Although North American companies may never cooperate to the extent that members of Toyota's Keiretsu do, inter organizational linkages can help firms achieve higher levels of innovation and performance, especially as they learn to shift from an adversarial to a partnership mind-set.

FROM ADVERSARIES TO PARTNERS

Fresh flowers are blooming on the battle – scarred landscape where once-bitter rivalries among suppliers, customers, and competitors took place. In North America, collaboration among organizations initially occurred in not – for – profit social service and mental health organizations where public interest was involved. Community organizations collaborated to achieve greater effectiveness for each patty and better utilize scare resources. With the push from international competitors and international examples, hard – nosed American managers are shifting to a new partnership paradigm on which to base their relationships.

Consider the example of Eastman Kodak Co. and Sun Chemical Corp. the two companies have competed vigorously for years, selling film and offset – printing supplies to the same set of customers. However, they forged a partnership to develop and market graphic arts products in order to compete worldwide against Agfa-Gevart Group, the world's largest supplier of graphic – arts materials. As a Kodak spokesman put it, "We at Eastman

Kodak came to the conclusion that it is better to join forces with another competitor than to continue competing with Agfa starting us in the face.

More companies are changing from a traditional adversarial mindset to a partnership orientation. More and more evidence from studies of General Electric, Corning, Amoco, and Whirlpool indicate that partnering allows reduced cost and increased value for both parties in a predatory world economy. The new model is based on trust and the ability of partners to develop equitable solutions to conflicts that inevitably arise. In the new orientation, people try to add value to both sides and believe in high commitment rather than suspicion and competition. Companies work toward equitable profits for both sides rather than just for their own benefit. The new model is characterized by lots of shared information, including electronic linkages for automatic ordering and face – to – face discussions to provide corrective feedback and solve problems. Sometimes people from other companies are on site to enable very close coordination. Partners are involved in each other's product design and production and invest for the long term. It's not unusual for business partners to help each other outside whatever is specified in the contract.

For example, AMP, a manufacturer of electronic and electrical connectors, was contacted by a customer about a broken connector that posed serious problems. It wasn't even AMP's connector, but the vice president and his sales manager went to a warehouse on a weekend and found replacement parts to get the customer back on line. They provided the service with no charge as a way to enhance the relationship. Indeed, this kind of teamwork treats partner companies almost like departments of one's own company.

Changing Characteristics of Inter organizational Relationships

Traditional Orientation	New Orientation
Adversarial	Partnership
Suspicion, Competition, arm's length	Trust, addition of value to both sides, high commitment
Price. Efficiency, own profits	Equity. Fair dealing. All profit
Limited information and feedback	Electronic linkages to share key information problem feedback, and decision
Legal resolution of conflict	Mechanisms for close coordination, people on site.
Minimal involvement and up-front investment	Involvement in partner's product design and production
Short-term contracts	Long-term contracts
Contract limiting the relationship	Business Assistance beyond the contract

Companies like Whirlpool Corporation use suppliers to design new products. The design work for the gas burner system for a new Whirlpool gas range was done by supplier Eaton Corporation. In this new view of partnerships, dependence on another company is seen to reduce rather than increase risks. Greater value can be achieved by both parties. By being imbedded in a system inter – organizational relationship, similar to a Japanese keiretsu, everyone does better by helping each other. This is a far cry from the belie that organizations do best by being autonomous and independent. Sales represent actives may have desk on the customer's factory floor, and they have access to information systems and the research lab. Coordination is so intimate that its hare to tell one organization from another. An example of how partnership can boost both parties is Empire Equipment.

By becoming intimately involved in the supplier's production with the attitude of fair dealing and adding value to both sides, Empire Equipment achieved savings for itself and additional value for its supplier. In the next generation of collaborative networks, suppliers may build products from components that arrive at one point to be assembled into a final product. Germany's Volkswagen is attempting to achieve this new form of organization in the automobile industry, as described in the Taking the Lead box.

MANUFACTURING AND SERVICE TECHNOLOGIES

ORGANIZATION LEVEL MANUFACTURING TECHNOLOGY
Manufacturing technologies include traditional manufacturing processes and new computer-based manufacturing systems.

MANUFACTURING FIRMS
Woodward's Study: The first and most influential study of manufacturing technology was conducted by Joan Woodward, a British industrial sociologist. Her research began as a field study of management principles in south Essex. The prevailing management wisdom at the time (1950s) was contained in what was known as universal principles of management. These principals were "one best way" prescriptions that effective organizations were expected to adopt. Woodward surveyed one manufacturing firms firsthand to learn how they were organized. She and her research team visited each firm, interviewed managers, examined company records, and observed the manufacturing operations, here data included a wide range of structural characteristics (span of control, levels of management) and dimensions of management style (written versus verbal communications, use of rewards) and the type of manufacturing process. Data were also obtained that reflected commercial success of the firms.

Woodward developed a scale and organized the firms according to technical complexity of the manufacturing process. Technical Complexity represents the extent of mechanization of the manufacturing process. High technical complexity means workers play a larger role in the production process. Woodward's scale of technical complexity originally had ten categories. These categories were further consolidating into three basic technology groups.
- **Group 1. Small batch and unit production.** These firms tend to be job shop operations that manufacture and assemble small orders to meet specific needs of customers. Custom work is the norm. Small – batch production relies heavily on the human operator; it is thus not highly mechanized. Steinway & Sons is an example of small-batch production. Although computerized machines are now used to cut wood more precisely than human hands, much of the work of building a Steinway piano is done by craftsmen in much the same way it was done a century ago. Compared to competitors, who turn our hundreds of thousands of pianos annually, Steinway's artisans build only 2,500 in the United States and 2,000 in Germany each year.
- **Group II; Large–batch and mass production.** Large – batch production is a manufacturing process characterized by long production runs of standardized parts. Output often goes into inventory from which orders are filled, because customers do not have special needs. Examples include most assembly lines, such as for automobiles or trailer homes.
- **Group III; Continues process production,** in continuous process production the entire process is mechanized. There is no starting and stopping. This represents mechanization and standardization one step beyond those in an assembly line. Automated machine control the continuous process, and out comes are highly predictable. Examples would include chemical plants, oil refineries, liquor producers, and nuclear power plants.

Using this classification of technology, Woodward's data made sense. A few of her key findings are given in the number of management levels and the manager/ total personnel ratio, for example, show definite increases as technical complexity increase from unit production to continuous process. This indicates that greater management intensity is needed to manage complex technology. Direct/indirect labor ratio decreases with technical complexity because more indirect workers are required to support and maintain complex machinery.

EXAMPLE: Relationships between Technical Complexity and Structural Characteristics

Structural Characteristic	Technology		
	Unit Production	Mass Production	Continuous Production
Number of management levels	3	4	6
Supervisor span of control	23	45	15
Direct/indirect labor ratio	9 :1	4 :1	1 :1
Manager/Total personnel ratio	Low	Medium	High
Workers' skill level	High	Low	High
Formalized procedures	Low	High	Low
Centralization	Low	High	Low
Amount of Verbal communication	High	Low	High
Amount of written communication	Low	High	Low
Overall Structure	Organic	Mechanistic	Organic

Other characteristics, such as span of control, formalized procedures and centralization, are high for mass production technology but low for other technologies because the work is standardized. Unit production and

continuous process technologies require highly skilled workers to run the machines and verbal communication to adapt to changing conditions. Mass Production is standardized and routinized, so few exceptions occur, little verbal communication is needed, and employees are less skilled.

Overall, the management systems in both unit production and continuous process technology are characterized as organic. They are more free-flowing and adaptive, with fewer procedures and less standardization. Mass Production, however, is mechanistic, with standardized jobs and for Mali zed procedures. Woodward's discovery about technology thus provided substantial new insight into the causes of organization structure. In Joan Woodward's own words, "Different technologies impose different kinds of demands on individuals and organizations, and those demands had to be met through an appropriate structure.

Strategy, Technology, and Performance: Another portion of Woodward's study examined the success of the firms along dimensions such as profitability, market share, stock price, and reputations. As discussed the measurement of effectiveness is not simple or precise, but Woodward was able to rank firms on a scale of commercial success according to whether they displayed above-average, average, or below-average performance on strategic objectives.

Woodward compared the structure-technology relationship against commercial success and discovered that successful firms tended to be those that had complementary structures and technologies. Many of the organizational Characteristics of the successful firms were near the average of their technology category. Below – average firms tended to depart from the structural characteristics could be interpreted as clustering into organic and mechanistic management system, Successful small-batch and continuous process organizations had organic structures, and successful mass production organizations had mechanistic structures. Subsequent research has replicated her findings.

What this illustrates for today's companies is that strategy, structure and technology need to be aligned, especially when competitive condition change. Some insurance companies in the United States are currently realigning strategy, structure, and technology because of increased competition in the insurance business. Companies such as Geico and USSAA are growing rapidly though the use of direct mail and phone solicitation, avoiding the costs associated with doing business through independent insurance agents. Agency-based companies like state Farm and Allstate have had to put new emphasis on a low – cost strategy and are adopting efficiency –oriented information technology to cut costs and more effectively serve customers. Another example is the Madame Alexander doll factory in Harlem, where a new production system led to a restructuring of employees into teams. Now, instead of individually producing parts such as wigs, shoes, and all the other tiny bits that go into a doll, employees work in teams that each produces about three hundred complete doll, or wardrobe assemblies a day.

Failing to adopt appropriate new technologies to support strategy, or adopting a new technology and failing to realign strategy to match it, can lead to poor performance. Today's increased global competition means more volatile markets, shorter product life cycles, and more sophisticated and knowledgeable consumers; and flexibility to meet these new demands has become a strategic imperative for many companies. Manufacturing companies can adopt new technologies to support the strategy of flexibility. However, organizations structures and management processes must also be realigned as a highly mechanistic structure hampers flexibility and prevents the company from reaping the benefits of the new technology.

For utility companies, once the strategy and technology for providing electricity are chosen, the structure and management approach must also be aligned to achieve strategic objectives, as illustrated in the following example of nuclear power plants. The nuclear power plant is a continuous process technology; its automated equipment is highly complex and requires skilled employees along with a high number of maintenance personnel. Great management skills and intensity are required to ensure close supervision and to provide backup expertise in a crisis. The failure of Boston Edison's management to diagnose the special management. Needs of nuclear technology cost the company and its ratepayers dearly. When the Pilgrim Plant was closed for upgrading. Boston Edison spent $ 200,000 a day to buy electricity to replace what Pilgrim would have generated.

COMPUTER – INTEGRATED MANUFACTURING

In the years since Woodward's research, new developments have occurred in manufacturing technology. New manufacturing technologies include robots, numerically controlled machine tools, and computerized software for product design, engineering analysis, and remote control of machinery. The ultimate technology is called computer-integrated manufacturing (CIM). Also called advanced manufacturing technology, agile manufacturing, the factory of the future, smart factories, or flexible manufacturing systems, CIM links together manufacturing components

that previously stood alone. Thus, robots, machines, product design, and engineering analysis are coordinated by a single computer.

The result has already revolutionized the shop floor, enabling large factories to deliver a wide range of custom-made products at low mass production costs. Computer-integrated manufacturing also enables small companies to go toe-to-toe with large factories and low – cost foreign competitors. Techknits, Inc. a small manufacturer located in New York City competes successfully against low-cost sweater – makers in the Far East by using $ 8 million worth of computerized looms and other machinery. The work of designing sweaters, which once took two days, can now be accomplished in two hours. Looms operate round-the-clock and crank out 60,000 sweaters a week, enabling Techknits to fill customer orders faster than foreign competitors. Computer-integrated manufacturing is typically the result of three sub-components.

- Computer – aided design (CAD). Computers are used to assist in the drafting design, and engineering of new parts. Designers guide their computers to draw specified configurations on the screen, including dimensions and component details. Hundreds of design alternatives can be explored, as can scaled – up or scaled – down versions of the original.
- Computer-aided manufacturing (CAM) Computer-controlled machines in materials handling, Fabrication, productions, and assembly greatly increase the speed at which items can be manufactured. CAM also permits a production line to shift rapidly from producing one product to any variety of other products by changing the instruction tapes or software in the computer CAM enables the production line to quickly honor customer requests for changes in product design and product mix.
- Integrated information Network. A computerized system links al aspects of the firm—including accounting, purchasing, marketing, inventory control, design, production, and so forth. This system, based on a common data and information base, enables managers to make decisions and direct the manufacturing process in a truly integrated fashion.

The combination of CAD, CAM, and integrated information systems represents the highest level of computer-integrated manufacturing. A new product can be designed on the computer, and a prototype can be produced untouched by human hands. The ideal factory can switch quickly from one product to another, working fast and with precision, without paperwork or recordkeeping to bog down the system.

A company can adopt CAD in its engineering design department and / or CAM in its production area and make substantial improvements in efficiency and quality. However, when all three components are brought together in a truly advance plant, the results are breathtaking. Companies such as Xerox, Texas Instruments, Hewlett-Packard, and Boeing are leading the way. Boeing's 777 the largest twin-engine plane ever built, has been called the first "Paperless" Jetliner. The company designed the plane with eight IBM mainframe computers supporting 2,200 workstations that eventually handled 3,500 billion bits of information. The digital design system reduced the possibility of human error and cut engineering changes and reworking of ill-fitting components by more than 50 percent over previous plane projects.

This ultra – advanced system is not achieved piecemeal. CIM reaches its ultimate level to improve quality, customer services, and cost – cutting when all parts are used interdependently. The integration of CIM and flexible work processes is changing the face of manufacturing. The wave of the manufacturing future is mass customizations, whereby factories are able to mass-produce products designed to exact customer specification. Today, you can buy a computer assembled to your exact specifications, jeans customized for your body, glasses molded to precisely fit and flatter your face, CDs with music tracks that you select, and pills with the exact blend of vitamins and minerals you want. Acumin, for example, is an internet –based company that blends vitamins, herbs, and minerals according to each customer's instructions, compressing up to ninety-five ingredients into three to five pills. At Custom Foot stores, customers mix and match design components such as style, color, and material. A high – tech electronic scanner measures the customer's foot, then the complete order is sent by modem to the company's headquarters in Florence, Italy, shoes are generally ready in about three weeks and often cost less than many premium brands sold off the shelf. Ross Controls, a seventy – year – old manufacture of pneumatic valves, invested $ 8 million in computerized design and manufacturing technology to be able to tailor products to exact customer needs. Even automobiles are moving toward mass customization, and 60 percent of the cars BMW sells in Europe are built to order. Although so far, most U.S customers have not been willing to wait the several month it takes for a custom-ordered vehicles, some business leaders envision a time in the near future when cars can be custom made in as little as three days.

Performance: The awesome advantage of CIM is that products of different sizes, types and customer requirements freely intermingle on the assembly line. Bar codes imprinted on a part enable machines to make instantaneous

changes such as putting a large screw in a different location--- without slowing the production line. A manufacturer can turn out an infinite variety of products in unlimited batch sizes. In traditional manufacturing systems studied by Woodward, choices were limited to the diagonal. Small batch allowed for high product flexibility and custom orders, but because of the "crafts man ship" involved in custom – making products, batch size was necessarily small Mass production could have large-batch size, but offered limited product flexibility. Continuous process could produce a single standard product in unlimited quantities. Computer – integrated manufacturing allows plants to break free of this diagonal and to increase both batch size and product flexibility at the same time. When taken to its ultimate level, CIM allows for mass customizations, with each specific product tailored to customer specification. This high – level use of CIM has been referred to as computer-added craftsmanship because computes tailor each product to meet a customer's exact needs. the internet plays an important role in the trend toward mass customization because it addition to making it easier and faster to coordinate customer orders with factory tooling and supply requirements.

Studies suggest that with CIM, machine utilization is more efficient, labor productivity increases, scrap rates decrease, and product variety customer satisfaction increase. Many U.S. manufacturing companies are reinventing the factory using CIM and associated management systems to increase productivity.

Structural Implications: Research into the relationship between CIM and organizational characteristics is beginning to emerge. Compared with traditional mass production technologies, CIM has a narrow span of control, few hierarchical levels, adaptive tasks, low specialization, decentralizations, and the overall environment is characterized as organic and self – regulative. Employees need the skills to participate in teams; training is broad (So workers are not overly specialized). And frequent (so workers are up to date). Expertise tends to be cognitive so workers can process abstract ideas and solve problems. Inter organizational relationships in CIM firms are characterized by changing demand from customers --- which is easily handled with the new technology --- and close relationships with a few suppliers that provide top quality raw materials.

EXAMPLE Comparison of Organizational Characteristics Associated with Mass Production and Computer Integrated Manufacturing.

Characteristic	Mass Production	CIM
Structure		
Span of control	Wide	Narrow
Hierarchical Levels	Many	Few
Tasks	Routine, Repetitive	Adaptive, Craftier
Specialization	High	Low
Decision making	Centralized	Decentralized
Overall	Bureaucratic, Mechanistic	Self-regulating, organic
Human Resources		
Interactions	Stand Alone	Teamwork
Training	Narrow one time	Broad, Frequent
Expertise	Manual, Technical	Solve problems
Inter organizational		
Customer demand	Stable	Changing
Suppliers	Many, arm's length	Few, Close relations

Technology alone cannot give organizations the benefits of flexibility, quality, increased productions, and greater customer satisfaction. Research suggests that CIM can become a competitive burden rather than a competitive advantage unless organizational structures and management processes are redesigned to take advantage of the new technology. However, when top managers make a commitment to implement new structures and processes that empower workers and support a learning and knowledge – creating environment, CIM can help companies be more competitive. The taking the Lead box describes how mangers at Deere & Co. are combining advanced manufacturing technology with new approaches to management as they reinvent one of the oldest business in the United States.

MANUFACTURING AND SERVICE TECHNOLOGIES (CONTD.)

ORGANIZATION – LEVEL SERVICE TECHNOLOGY

One of the biggest changes occurring in the technology of organizations is the growing service sector. The percentage of work force employed in manufacturing continues to decline, not only in United States, but in Canada, France, Germany, the United Kingdom, and Sweden as well. In the United States, services now generate 74 percent of the gross domestic product and account for 79 percent of all jobs. Service technologies are different from manufacturing technologies and, in turn, require a specific organization structure.

SERVICE FIRMS

Definition: Whereas manufacturing organizations achieve their primary purpose through the production of products, service organizations accomplish their primary purpose through the production and provision of services, such as education, health care, transportation, banking, and hospitality, studies of service organizations have focused on the unique dimensions of service technologies. The characteristics of service technology are compared to those of manufacturing technology in Example.

The most obvious different is that service technology produces an intangible output, rather than a tangible product, such as a refrigerator produced by a manufacturing firm. A service is abstract and often consists of knowledge and ideas rather than a physical product. Thus, whereas manufacturers' products can be inventories for later sale, services are characterized by simultaneous production and consumption. A client meets with a doctor or attorney, for example, and students and teachers come together in the classroom. A service is an intangible product that does not exist until it is requested by the customer; it cannot be stored, inventoried, or viewed as a finished good. If a service is not consumed immediately upon production, it disappears. This typically means that service firms are labor and knowledge intensive; with many employees needed o meet the needs of customers whereas manufacturing firms tend to be capital intensive, relying on mass production, continuous process, and advanced manufacturing technologies.

Direct interaction between customer and employee is generally very high with services, while there is little direct interaction between customer and employees in the technical core of a manufacturing firm. This direct interaction means that the human element (Employees) becomes extremely important in service firms. Whereas most people never meet the workers who manufactured their cars, they interact directly with the salesperson who sold them their Subaru or Pontiac Grand Am. The treatment received from the salesperson --- or by a doctor, lawyer, or hairstylist --- affects the perception of the service received and the customer's level of satisfaction. The quality of services is perceived and cannot be directly measured and compared in the same way that the quality of a product can. Another characteristic that affects customer satisfaction and perception of quality service is rapid response time. A service must be provided when the customer wants and needs it. When you take a friend to dinner, you want to be seated and served in a timely manner; you would not be very satisfied if the hostess or manager told you to come back tomorrow when there would be more tables or servers available to accommodate you.

The final defining characteristic of service technology is that site selection is often much more important than with manufacturing. Because services are intangible, they have to be located where the customer wants to be served. Services are dispersed and located geographically close to customer. For example, fast-food franchises usually disperse their facilities into local stores. Most towns of even moderate size today disperse their facilities into local stores. Most towns of even moderate size today have two or more McDonald's restaurant rather than one huge one in order to provide service where customers want it.

In reality, it is difficult to find organizations that reflect 100 percent service or 100 percent manufacturing characteristics. Some service firms are placing a grater emphasis on customer service to differentiate themselves and be more competitive, which is one reason for the increased use of computer- integrated manufacturing. In addition, manufacturing organizations have departments such as purchasing, human resources, and marketing that are based on service technology. On the other hand, organizations such as gas stations, stockbrokers, retail stores, and fast – food restaurants may belong to the service sector, even though the provision of a product is a significant part of the transaction. The vast majority of organization involves some combination of products and services. The important point is that all organizations ca be classified along a continuum that includes both manufacturing and service characteristics, as illustrated in Example. 6.6.

New Directions in Services: Service firms have always tended toward providing customized output --- that is, providing exactly the service each customer wants and needs. For example, when you visit a hairstylist, you don't

automatically get the same cut the stylist gave the three previous clients. The stylist cuts your hair the way you request it. However, the trend toward mass customization that is revolutionizing manufacturing has had a significant impact on the service sector as well. Customer expectations of what constitutes good service are rising. Service companies such as the Ritz – Carlton Hotels, USAA, an insurance and financial services company, and wells Fargo Bank are using new technology to keep customers coming back. All Ritz – Carlton hotels are linked to a database filled with the preferences of half-a-million guests. Allowing any desk clerk or bellhop to find out what your favorite wine is whether you're allergic to feather pillows, and how many extra towels you want in your room. At Wells Fargo, customers can apply over the internet and get a three – second decision on a loan structured specifically for them. Vincent Oliva, Paul Sanchez, and Joel Myers based their new company, Capital Protections Insurance Services, on the mass customization concept after they grew frustrated with the inflexibility of many insurance companies.

DESIGNING THE SERVICE ORGANIZATION
The feature of service technologies with a distinct influence on organizational structure and control systems is the need for technical core employers to be close to the customer.

The impact of customer contact on organization structure is reflected in the use of boundary roles and structural desegregation. Boundary roles are used extensively in manufacturing firms to handle customers and to reduce disruptions for the technical core. They are used less in boundary spanners, so service customers must interact directly with technical employees, such as doctors or brokers.

A service firm deals in information and intangible outputs and does not need to be large. Its greatest economies are achieved through desegregation into small units that can be located close to customers. Stockbrokers, doctors' clinics, consulting firms, and banks disperse their facilities into regional and local offices. Some fast-food chains, such as Taco Bell, are taking this step further, selling chicken tacos and bean burritos anywhere people gather--- airports, supermarkets, college campuses, or street corners. Manufacturing firms, on the other hand, tend to aggregate operations in a single area that has raw materials and in available work force. A large manufacturing firm can take advantage of economies derived from expensive machinery and long production runs.

Service technology also influence internal organization characteristics used to direct and control the organization. For one thing, the skills of technical core employees need to be higher. These employees need enough knowledge and awareness to handle customer problems rather than just enough to perform a single, mechanical task. Some service organizational give their employees the knowledge and freedom to make decisions and do whatever is needed to satisfy customers, whereas others, such as McDonald's have set rules and procedures for customer service. Yet in all cases, service employees need social and interpersonal skills as well as technical skills. Because of higher skills and structure dispersion, decision making often tends to be decentralized in service firms, and formalizations tends to be low. Many Taco Bell outlets operate with no manager on the premises. Self – directed teams manage inventory, schedule work, order supplies, and train new employees.

EXAMPLE: Configuration and Structural Characteristics of Service Organizations versus Product Organization

	Service	**Product**
Structure		
Separate boundary roles	Few	Many
Geographical dispersion	Much	Little
Decision making	Decentralized	Centralized
Formalization	Lower	Higher
Human Resources		
Employees skill level	Higher	Lower
Skill emphasis	Interpersonal	Technical

Understanding the nature of service technology helps managers aligns strategy, structure, and management processes that may be quite different from those fro a product- based or traditional manufacturing technology. In additions, as mentioned earlier, manufacturing organizations are placing greater emphasis on service, and managers can use these concepts and ideas to strengthen their company's service orientation.

Now let's turn to another perspective on technology, that of production activities within specific organizational departments. Departments often have characteristics similar to those of service technology providing service to other departments within the organization.

DEPARTMENTAL TECHNOLOGY

This section shifts to the department level of analysis for departments not necessarily within the technical core. Each department in an organization has a production process that consists of a distinct technology. General Motors has departments for engineering, R&D, human resources, advertising, quality control, finance, and dozens of other functions. This section analyzes the nature of departmental technology and its relationship with departmental structure.

The framework that has had the greatest impact on the understanding of departmental technologies was developed by Charles Perrow. Perrow's model has been useful for a broad range of technologies, which made it deal for research into departmental activities.

VARIETY

Perrow specified two dimensions of departmental activities that were relevant to organization structure and process. The first is the number of exceptions in the work. This refers to task variety, which is the frequency of unexpected and novel events that occur in the conversion process. When individuals encounter a large number of unexpected situations, with frequent problems, variety is considered high. When there are few problems, and when day –to-day job requirements are repetitious, technology contains little variety. Variety in departments can range from repeating a single act, such as on assembly line to work on a series of unrelated problems or projects.

ANALYZABILITY

The second dimension of technology concerns the analyzability of work activities, when the conversion process is analyzable, the work can be reduced to mechanical steps and participants can follow an objective, computational procedure to solve problems. Problem solution may involve the use of standard procedures, such as instructions and manuals, or technical knowledge, such as that in a textbook or handbook. On the other hand, some work is not analyzable. When problems arise, it is difficult to identify the correct solution. There is no store of techniques or procedures to tell a person exactly what to do. The cause of or solution to a problem is not clear, so employees rely on accumulated experience, intuition, and judgment. The final solution to a problem is often the result of wisdom and experience and not a result of standard procedures. Philippos Poulos, a tone regulator at Steinway & Sons, has an un-analyzable technology. Tone regulators carefully check each piano's hammers to be sure they produce the proper Steinway Sound. These quality control tasks require years of experience and practice. Standard procedures will not tell a person how to do such tasks.

MANUFACTURING AND SERVICE TECHNOLOGIES (CONTD.)

FRAMEWORK

The dimensions of variety and analyzability form the basis for four major categories of technology: routine, craft, engineering, and no routine.

Routine Technologies are characterized by little task variety and the use of objective, computational procedures. The tasks are formalized and standardized. Examples include an automobile assembly line and a bank teller department.

Craft Technologies are characterized by fairly stable stream of activities, but the conversion process is not analyzable or well understood. Tasks require extensive training and experience because employees respond to intangible factors on the basis of wisdom, intuition, and experience. Although advances in machine technologies seem to have reduced the number of craft technologies in organizations, a few craft technologies remain. For example, steel furnace engineers continue to mix steel based on intuition and experience, pattern makers at apparel firms still convert rough designers' sketches into salable garments, and gas and oil explorations use their internal divining rod to determine where millions will be spent on drilling operations.

Engineering technologies tend to be complex because there is substantial variety in the tasks performed. However, the various activities are usually handled on the basis of established formulas, procedures, and techniques. Employees normally refer to a well – developed body of knowledge to handle problems. Engineering and accounting tasks usually fall in this category.

Non routine technologies have high task variety, and the conversion process is not analyzable or well understood. In Non routine technology, a great deal of effort is devoted to analyzing problems and activities. Several equally acceptable options typically can be found. Experience and technical knowledge are used to solve problems and perform the work. Basic research, strategic planning, and other work that involves new projects and unexpected problems are Non routine.

Routine versus Non routine. Variety and analyzability can be combined into a single dimension of technology. This dimension is called routine versus Non routine technology. The analyzability and variety dimensions are often correlated in departments meaning that technologies high in variety tend to below in analyzability, and technologies low in variety tend to be analyzable. Departments can be evaluated along a single dimension of routine versus Non routine that combines both analyzability and variety, which is a useful shorthand measure for analyzing departmental technology.

The following questions show how departmental technology can be analyzed for determining its placement on Perrow's Technology framework. Employees normally circle a number from one to seven in response to each question.

Variety
To what extent would you say your work is routine?
Does most everyone in this unit do about the same job in the same way most of the time?
Are unit members performing repetitive activities in donning their job?

Analyzability
To what extent is there a clearly known way to do the major types of work you normally encounter?
To what extent is there an understandable sequence of steps that can be followed in doing your work?
To do your work, to what extents can you actually rely on established procedures and practices?

If answers to the above questions indicate high scores for analyzability and low scores for variety, the department would have a routine technology. If the opposite occurs, the technology would be Non routine. Low variety and low analyzability indicate a craft technology, and high variety and high analyzability indicate an engineering technology. As a practical matter, most departments fit somewhere along the diagonal and can be most easily characterized as routine or Non routine.

WORKFLOW INTERDEPENDENCE AMONG DEPARTMENTS

So far, we have explored how organizations and department technologies influence structural design. The final characteristic of technology that influences structure is called interdependence. Interdependence means the extent to which departments depend on each other for resources or materials to accomplish their tasks. Low interdependence means that departments can do their work independently of each other and have little need for interaction, consultation, or exchange of materials. High interdependence means departments must constantly exchange resources.
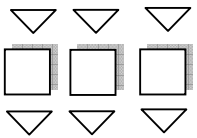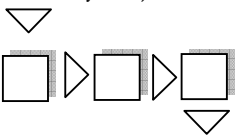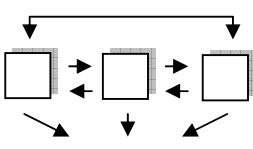
TYPES

James Thompson defined three types of interdependence that influence organization structure. These interdependencies are illustrated in Example and are discussed in the following sections.

Pooled: Pooled interdependence is the lowest form of interdependence among departments. In this form, work does not flow between units. Each department is part of the organization and contributes to the common good of the organization, but works independently. McDonald's restaurants or branch banks are examples of pooled interdependence. An outlet in Chicago need not interact with an outlet in Urbana. Pooled interdependence may be associated with the relationships within a divisional structure. Divisions or branches share financial resources from a common pool, and the success of each division contributes to the success of the overall organization.

Thompson proposed that pooled interdependence would exist in firms with what he called a mediating technology. A mediating technology provides

EXAMPLE: Thompson's Classification of Interdependence and Management Implication

Form of Interdependence	Demands on Horizontal Communication Decision Making	Type of Coordination Required	Priority for Locating units Close Together
Pooled (Bank) Clients	Low Communication	Standardization, rules, procedures Divisional Structure	Low
Sequential (Assembly line) Clients	Medium Communication	Plans, Schedules, Feedback Task Forces	Medium
Reciprocal (Hospital) Clients	High Communication	Mutual adjustment, cross- departmental meetings, teamwork Horizontal structure	High

Products or services that mediate or link clients from the external environment and, in so doing, allows each department to work independently. Banks, brokerage firms, and real estate offices all mediate between buyers and sellers, but the offices work independently within the organization.

The management implications associated with pooled interdependence are quite simple. Thompson argued that managers should use rules and procedures to standardize activities across department. Each department should use

the same procedures and financial statements so the outcomes of all departments can be measured and pooled. Very little day – to – day coordination is required among units.

Sequential: When interdependence is of serial form, with parts produced in one department becoming inputs to another department, then it is called sequential interdependence. the first department must perform correctly for the second department to perform correctly. This is higher level of interdependence than pooled, because department exchange resources and depend upon others to perform well. Sequential interdependence creates a greater need for horizontal mechanisms such as integrators or task forces.

Sequential interdependence occurs in what Thompson called long-linked technology, which "refers to the combination in one organization of successive stages of production: each stage of production uses as it inputs the production of the preceding stage and produces inputs for the following stage." Large organizations that use assembly line production, such as in the automobile industry, use long-linked technologies and are characterized by sequential interdependence between plants or departments. For example, a United Auto Workers' strike at two General Motors parts plants in the summer of 1998 eventually halted production at all but one of GM's assembly plants in North America. Assembly plants were unable to continue work because they could not get the parts they needed.

The management requirements for sequential interdependence are more demanding than for pooled interdependence. Coordination among the linked plants or departments is required. Since the interdependence implies a one-way flow of materials, extensive planning and scheduling are generally needed. Plant B needs to know what to expect from Plant. A so both can perform effectively. Some day – to – day communication among plants is also needed to handle unexpected problems and exceptions that arise.

Reciprocal: The highest level of interdependence is reciprocal interdependence. this exist when the output of operation A is the input to operation B, and the output of operation B is the input back gain to operation A. the outputs of departments influence those departments in reciprocal fashion

Reciprocal interdependence tends to occur in organizations with what Thompson called intensive technologies, which provide a variety of products or services in combination to a client. Hospitals are an excellent example because they provide coordinated services to patients. A patient may move back and forth between X ray, surgery, and physical therapy as needed to be cured. A firm developing new products is another example. Intense coordination is needed between design, engineering, manufacturing, and marketing to combine all their resources to suit the customer's product need.

Management requirements are greatest in the case of reciprocal interdependence. Because reciprocal interdependence requires that departments work together intimately and be closely coordinated, a horizontal structure may be appropriate. The structure must allow for frequent horizontal communication and adjustment. Extensive planning is required in hospitals, for example, but plans will not anticipate or solve all problems. Daily interaction and mutual adjustment among departments are required. Managers from several departments are jointly involved in face-to-face coordination, teamwork, and decision making. Reciprocal interdependence is the most complex inter-dependence for organizations to handle.

STRUCTURAL PRIORITY
Since decision making, communication, and coordination problems are greatest for reciprocal interdependence, reciprocal interdependence should receive first priority in organization structure. New product development is one area of reciprocal interdependence that is of growing concern to manager as companies face increasing pressure to get new product to market fast. Many firms re revamping the design-manufacturing relationship by closely integrating computer –aided design (CAD) and computer –aided manufacturing (CAM) technologies discussed earlier. Activities that are reciprocally interdependent should be grouped close together in the organization so managers have easy access to one another for mutual adjustment. These units should report to the same person on the organization chart and should be physically close so the time and effort for coordination can be minimized. A horizontal structure, with linked sets of teams working on core processes, can provide the close coordination needed to support reciprocal interdependence. Poor coordination will result in poor performance for the organization. If reciprocally interdependent units are not located close together, the organization should design mechanisms for coordination, such as daily meetings between departments or an intranet to facilitate communication. The next priority is given to sequential inter-dependencies, and finally to pooled inter-dependencies.

This strategy of organizing keeps the communication channels short where coordination is most critical to organizational success. For example, Boise Cascade Corporation experienced poor service to customer because customer service reps located in New York City were not coordinating with production planners in Oregon plants. Customers couldn't get delivery as needed. Boise was reorganized, and the two groups were consolidated under one roof, reporting to the same supervisor at division headquarters. Now customer needs are met because customer service reps work with production planning to schedule customer orders.

STRUCTURAL IMPLICATIONS

Most organizations experience various levels of interdependence, and structure can be designed to fit these needs. In manufacturing firms, new product development entails reciprocal interdependence among the design, engineering, purchasing, manufacturing, and sales departments. Perhaps a horizontal structure or cross-functional teams could be used to handle the back and – forth flow of information and resources. Once a product is designed, its actual manufacture would be sequential interdependence, with a flow of goods from one department to another, such as among purchasing, inventory, production control, manufacturing, and assembly. The actual ordering and delivery of products is pooled interdependence, with warehouses working independently. Customers could place an order with the nearest facility, which would not require coordination among warehouses, except in unusual cased such as a stock outage.

When consultant analyzed NCR to learn why the development of new products was so slow, they followed the path from initial idea to implementation. The problem was that the development, production and marketing of products took place in separate divisions, and communication across the three interdependent groups was difficult. NCR broke up its traditional organization structure and created several stand-alone units of about five hundred people, each with its own development, production, and marketing people, the new structure enabled new products to be introduced in record time.

The three levels of interdependence are illustrated by a study of athletic teams that examined interdependency among players and how it influences other aspects of baseball, football, and basketball teams.

IMPACT OF TECHNOLOGY ON JOB DESIGN

The relation between a new technology and organization seems to follow a pattern, beginning with immediate effect on the content of jobs followed (after a longer period) by impact on design of the organization. The ultimate impact of technology on employees can be partially understood through the concepts of job design and sociotechnical system.

JOB DESIGN

Job design includes the assignment of goals and tasks to be accomplished by employees. Managers may consciously change job design to improve productivity or worker motivation. For example, when workers are involved in performing boring, repetitive tasks, manager may introduce job rotation. Which mean moving employees from job to job to give them a greater variety of tasks? However, managers may also unconsciously influence job design through the introduction of new technologies, which can change how jobs are done and he very nature of jobs. Managers should understand how the introduction of a new technology may affect employee's jobs. The common theme of new technologies in the work place is that they in some way substitute machinery for human labor in transforming inputs into outputs. Automated teller machines (ATMs) have replaced thousands of human bank tellers, for example IBM has even built a plant in Austin, Texas, that can produce laptop computers without the help of a single worker.

In addition to actually replacing human workers, technology may have several different effects on the human jobs that remain. Research has indicated that mass production technologies tend to produce job simplification, which means that the variety and difficulty of tasks performed by a single person is reduced. The consequence is boring, repetitive jobs that generally provide little satisfaction. More advanced technology, on the other hand, tends to cause job enrichment meaning that the job provides greater responsibility, recognition, and opportunities for growth and development. These technologies create a greater need for employee training and education because workers need higher-level skills and grater competence to master their tasks. For example, ATMs took most the tine tasks (deposit and withdrawals) away from banks tellers and left them with the more complex tasks that require higher-level skills. Studies of computer – integrate manufacturing found that it produces three noticeable results for employees: more opportunities for intellectual mastery and enhanced cognitive skills for workers; more worker responsibility for results; and greater interdependence among workers, enabling more social interaction and the development of team work and coordination skills. Advanced manufacturing technology may also contribute to job enlargement, which is an expansion of the number of different tasks performed by an employee. Because fewer

workers are needed with the new technology, each employee has to be able to perform a greater number and variety of tasks.

With advanced technology, workers have to keep learning new skills because technology, is changing so rapidly, advances in information technology are having a significant effect on jobs in the service industry, including doctors' offices and medical clinics, law firms, financial planners, and libraries. Workers may find that their jobs change almost daily because of new software programs, increased use of the internet, and other advances in information technology.

Advanced technology does not always have a positive effect on employees, but research findings in general are encouraging, suggesting that jobs for workers are enriched rather that simplified, engaging their higher mental capacities, offering opportunities for learning and growth, and providing greater job satisfaction.

SOCIOTECHNICAL SYSTEMS
The sociotechnical system approach recognized the interaction of technical and human needs in effective job design, combining the needs of people with the organization's need for technical efficiency. The socio portion of the approach refers to the people groups who work in organization and how work is organized and coordinated. The technical portion refers to the materials, tools, machines, and processes used to transform organization inputs into outputs.

The social system includes all human elements – such as individual and team behaviors, organizational culture, management practices, and degree of communication openness—that can influence the performance of work. The technical system refers to the type of production technology, the level of interdependence, the complexity of tasks, and so forth. The goal of the sociotechnical system approach is to design the organization for joint optimization, which means that an organization functions best only when the social and technical systems are designed to fit the needs of one another. Designing the organization to meet human needs while ignoring the technical system, or changing technology to improve efficiency while ignoring human needs, may inadvertently cause performance problems. The sociotechnical system approach attempts to find a balance between what workers want and need and the technical requirements of the organization's production system.

One example comes from a museum that installed a closed – circuit TV system. Rather than having several guards patrolling the museum and grounds, the television could easily be monitored by a single guard. Although the technology saved money because only one guard was needed per shift, it led to unexpected performance problems. Guards had previously enjoyed the social interaction provided by patrolling; monitoring a closed – circuit television led to alienation and boredom. When a federal agency did an eighteen—month test of the system. Only 5 percent of several thousand experimental covert intrusions were detected by the guard. The system was inadequate because human needs were not taken into account.

Sociotechnical principles evolved from the work of the Tavistock Institute, a research organization in England, during the 1950s and 1960s. Examples of organizational change using sociotechnical systems principles have occurred in numerous organizations, including General Motors, Volvo, the Tennessee Valley Authority (TVA) and Procter & Gamble, Although there have been failures, in many of these applications, the joint optimization of changes in technology and structure to meet the needs of people as well as efficiency improved performance. Safety, quality, absenteeism, and turnover, in some cases, work design was not the most efficient based on technical and scientific principles, but worker involvement and commitment more than made up for the difference. Thus, once again research shows that new technologies need not have a negative impact on workers, because the technology often requires higher- level mental and social skills and can be organized to encourage the involvement and commitment of employees, thereby benefiting both the employee and the organization.

The sociotechnical systems principle that people should be viewed as resources and provided with appropriate skills, meaningful work, and suitable rewards becomes even more important in today's world of growing technological complexity. One study of paper manufactures found that organization that put too much faith in machines and technology and pay little attention to the appropriate management of people do not achieve advances in productivity and flexibility. Today's most successful companies strive to find the right mix of machines, Computer systems, and people and the most effective way to coordinate them. Systems based on maximum technical efficiency, tight top – down control, and assumptions that workers are irresponsible and mindless are increasingly ineffective.

Although many principles of sociotechnical system theory are still valid, current scholars and researchers are also arguing for an expansion of the approach to capture the dynamic nature of today's organizations, the chaotic environment, and the shift from routine to Nonroutine jobs brought about by advances in technology.

INFORMATION TECHNOLOGY

First – line management is typically concerned with well –defined problems about operational issues and past events. Top management, by contrast, deals mostly with uncertain, ambiguous issues, such as strategy and planning. As the complexity of computer – based information technology systems has increased, application have grown to support effective top management decision making about complex and uncertain problems.

OPERATIONS AND BUSINESS RESOURCE APPLICATIONS

The initial applications were based on the notion of machine room efficiency that is, current operations could be performed more efficiently with the use of computer technology. The goal was reduce labor cost by having computers take over some tasks. These systems became known s transaction processing systems (TPS), which automate the organization's routine, day-to-day business transactions. A TPS collect data from transactions such as sales, purchases from suppliers, and inventory changes and stores them in database. For example, Starbucks Coffee uses a transaction processing system to keep track of sales in all its stores worldwide. As data from transactions accumulate, they may be stored in various company databases.

In recent years, the concept of data warehousing and data mining has expanded the usefulness of these accumulated data. Data warehousing is the use of huge databases that combine all of a company's data and allow users to access the data directly, create reports, and obtain response, to what - if questions. Buildings a data base at a large corporation is a huge undertaking that includes defining hundreds of gigabytes of data from many existing systems, providing a means of continually updating the data, making it all compatible, and linking it to other software that makes it possible for users to search and analyze the data and produce helpful reports. Software for data mining helps users make sense of all this data. Data mining tools use sophisticated decision – making processes to search raw data for patterns and relationship that may be significant. Catalog retailer Fingerhut Corporation has a seven – trillion – byte database and can analyze individual customer in terms of up to 2,000 variables. Data mining helped manager learn that when customers move to a new home, they buy three times as much over the next three months, particularly in categories such as furniture, telecommunications equipment, and home decorations, this enabled the company to create as special catalog and target it to moves. Data warehousing and data mining can thus become a business resources by supporting management decision making.

 Through the application of management information systems and decision support systems, managers had tools to improve performance of departments and the organization as a whole. These applications use computer technology to help mangers make important decisions.

A management information system is a computer – bases system that provides information and support for managerial decision making. The MIS is supported by the organization's transaction processing system and by organizational database (and frequently database of external data as well) Information reporting systems. The most common form of MIS, provide mid-level managers with reports that summarize data and support day – to – day decision making. For example, when manager need to make decision about production scheduling, they can review the data on the anticipated number of orders within the next month, inventory levels, and availability of human resources. An executive information system (EIS) is a higher – level application that facilitates decision making at the highest levels of management. These systems are typically based on software that can convert large amount of complex data into pertinent information and provide that information to top managers in a timely fashion. For example Motorola's Semiconductor Product Sector, based in Austin, Texas, had massive amounts of stored data but users couldn't easily find what they needed. The company implemented an EIS using online analytical processing software so that more than a thousand senior executives, as well as managers and project analysts in fiancé, marketing, sales, and accounting department around the world, could quickly and easily get information about customer buying trends, manufacturing, and so forth, right form their desktop computer, without having to learn complex and arcane search commands.

A decision support systems (DSS) Provides specific benefits to managers at all level of the organization. These interactive, computer –based systems rely on decision models and integrate databases. Using decision support software, users can pose a series of "what "question to test possible alternatives. Based on assumption used in the software or specified by the user, managers can explore various alternatives and receive information to help them choose the alternative that will likely have the best outcome.

Wal-Mart uses EIS and DSS that rely on a massive database to make decision about what to stock, how to price and promote it, and when to recorder Department mangers at each store can keep track of which items are top sellers in

their department and make sure those items are stock. Handheld Scanners enable mangers to keep close tabs on inventory. Back at headquarter, top managers use executive information systems to analyze buying pattern and other information, enabling them to spot problems or opportunities. For example executives discovered that particular items are frequently purchased together, so they spotted an opportunity to cross- promote those items and increase sales. Companies such as Wal Mart and Motorola use information technology so well that is has become a strategic weapon.

INFORMATION TECHNOLOGY AS A STRATEGIC WEAPON
Using information technology as a strategic weapon is the highest level of application information technology can help build and enhance strategy by providing better data and information within the organization (internal application) as well as help the organization redefine and support relationship with customers, suppliers and other organization (external application). Internal applications include networking, intranet, and enterprises resource planning (ERP) systems. Extranets, e-commerce, and network structures are external application.

Networking, which links people and departments within a particular building or even across corporate offices, enabling them to share information and cooperate on projects, has become an important strategic weapon for many companies. Networks may take many forms, but the fastest – growing form of corporate networking is the intranet, a private companywide information system that uses the communications protocols and standards of the internet and the World Wide Web but is accessible only to people within the company. To view files and information, users simply navigate the site with a standard Web Browser, clicking on links. Although the intranet looks and acts like a Web Site, it is cordoned off from the public with the use of software program known as firewalls. Because intranet is Web-based, they can be accessed from any type of computers workstation. A single company may have many types of computers and software with traditional networks, organization faces a challenge of how to enable them all to communicate with one another. One solution is a category of software known as middleware, which medicated among myriad types of hardware and software sand enables these varied components to communicate on a network.

Today most companies with intranet have moved their management information system, executive information systems, and so forth over to the intranet so they can easily accessed by anyone who needs them. In addition, having these systems as part of the intranet means new features and applications can easily be added and accessed through as standard browser. Motorola's Semiconductor Products Sector (SPS) described earlier moved its existing executive information system over to a global intranet. Intranet can improve internal communications and unlock hidden information. They enable employees to keep in touch with what's going on around the organization, quickly and easily find information they need, share ideas, and work on projects collaboratively. The most advanced intranet, such a those at SPS, Ford Motor Company, Nike and Weyerhaeuser, described in the opening case, are linked into the proprietary system that govern a company's business functions. Ford's global intranet connects more than 100,000 workstations to thousands of sites offering proprietary information such as market research, analyses of competitor's components, and product development.

Another recent approach to information management helps pull together various types of information to see how decision and action in one part of the organization affect other part of the firm. A growing number of companies are setting up broad-scale information systems that take a comprehensive view of the organization's activities. These enterprises resources planning (ERP) systems collect, process, and provide information about a company's entire enterprise, including order processing, product design, purchasing, inventory, manufacturing, distribution, human resources, receipt of payments, and forecasting of future demand. An ERP can serve as the backbone for an entire organization by integrating key business and management processes. It has been estimated that 70 percent of the 1,000 largest U.S. Corporation use enterprise resource planning. An ERP system can provide the kind of information provided by transaction processing systems, as well as that provided by decision support systems or executive information systems. The key is that ERP weaves all these systems together so that managers, can see the big picture and act quickly, based on the information. In addition, ERP gives every one from the CEO to workers on the shop floor instant access to critical information that can help the company be smarter and more competitive.

Companies frequently modify the basic ERP software to match their strategic goals. Owens Corning, for example, incorporated individualized distribution cost, a key capability the company considered a competitive advantage. For Kaye instruments, which makes thermal – measuring equipment used in producing drugs, ERP was central to meeting the high quality standards and product consistency needed to earn ISO 9001 certification, putting the company in a much stronger position to compete globally. ERP helped Kaye closely integrate engineering and manufacturing by enabling workers to instantly call up specifications for products and the latest engineering revisions.

To keep in touch with customer and other organizations, organizations extend the intranet's function with an extranet, which gives access to key partners, suppliers, or customer. Extranets can improve communications and enhance the inter-organizational relationships. An extranet helped McKesson Corp., the large San Francisco –Based pharmaceutical supply business, cut costs and improves customer service. The company ships to more than 30,000 hospitals, pharmacies, and retail stores, but most belong to huge chains that pay bills from a central office. McKesson used to fax hundreds of billing statements to its customers' central accounting offices, but not uses an invoice inquiry system on the extranet; Customer can see bills from all their varied locations in one place, dramatically reducing communications and labor costs.

The concept of linking with other organizations is spreading throughout all industries. Companies as diverse as herbal soap manufactures Wood spirits and   computer giant IBM are farming out activities to contractors who are linked electronically to the company. Cisco System Inc., which outsourcers nearly 70 percent its products, electronically shares sensitive product and sales data with contract manufactures, enabling the company to ship routers and other products anywhere in the world in less than two days. The concept of electronically links with outside contractors finds its ultimate expression in the network organization structure, which means that a firm subcontracts most of its major functions to separate companies and coordination their activities from a small headquarters organization..

E – commerce with which essentially augments or replaces the swapping of products or money with the exchange of information between computer systems, is a significant way companies use technology as a strategic weapon. E – Commerce can be carried out between businesses or between a business and consumer. Business-to-Business purchasing online continues to grow. General Electric Buys around $5 billion of supplies online. And business – to customer commerce has zoomed. Goods and services sold to consumer over the internet in North America topped $8 million in 1998, and the number of households using the Net for shopping continues to grow.

Studies have shown that the appropriate use of information technology, such as executive information systems. Intranets and extranets, and enterprises resource planning systems, can improve the efficiency and effectiveness of the strategic decision – making process. Information technology enhances the ability of top executives to identify problems as well as the speed at which they generator solutions. Consider how Turner Industries has used information technology to gain a competitive edge in a tough industry.

STRATEGIC USE OF INFORMATION TECHNOLOGY

Managers are increasingly considering the role of information management in their constant search for the right combination of strategy, motivation, technology, and business design to maintain a competitive edge. Recall that two of the competitive strategies firms can adopt are low-cost leadership and differentiation. The low –cost leader incurs low production costs and can price its product or service offerings low enough so it makes a profit while rival firms are sustaining losses. Differentiation means a firm offers a unique product or services based on product features, superb service, or rapid delivery. Top managers look for ways to use information technology to achieve low-cost leadership or differentiation. Information technology might be used to create closer relationships with customers, barriers to entry for new firms, or efficient relationship with suppliers that can alter competitive balance with respect to cost leadership or differentiation. Kansas City Power and Light's Web site has evolved into a competitive weapon by helping to differentiate the company in the recently deregulated, increasingly competitive utilities business. KCPL started the site as a way to keep in touch with customer and let them know what was going on in the changing industry, but it has now become a place where customers can monitor their own power consumption as well as pay their bills and learn how to keep costs down. KCPL invested in a wireless automatic meter – reading system that can check the meters of 400,000 homes and businesses at any time. By linking it into the web site, the utility can give customer with internet access the ability to monitor their own power usage minute by minute, any time often day or night. Some KCPL customers track the information diligently to keep control of their power costs. This value – added service differentiate Kansas City Power and light from other utility companies. The automated meter-reading system has also increased KCPL's efficiency. Repair units can simply check the Web site to see if a problem is inside the customer's home or in the wiring leading to the house, which has saved an average of 105,000 field service trips per year.

Other organizations find other ways of using information technology for strategic advantage. Wal-Mart's pioneering use of computer networks to conduct business electronically squeezed time and costs out of unwieldy supply chain and made the company the largest retailer in the world. Wal-Mart uses technology to convert information into action almost immediately, keeping it a step ahead of the competition.

LOW – COST LEADERSHIP

Perhaps the most obvious way information technology can lower cost is through operational efficiency; but this means more than simply doing the same work faster. One recent advance in operational efficiency has been the use of ERP systems. These integrated systems can not only automatically control operation ranging from the procurement of supplies to shop floor manufacturing, but also facilitate the highest levels of strategic decision making, helping senior manager diagnose. Problems and develop solutions. Executives at Hershey Foods Corporation use an ERP system to study business practices in each of the corporation's divisions and adopt best practices for key strategic activities.

Intranets, extranet, and use of the World Wide Web can also improve operational efficiency. When Motorola needed to ramp up production quickly on new high-speed cable modems, it turned to an intranet to speed to process. Assembling this complex project would have taken extensive documentation, including drawings of each component; instead, Motorola used a digital camera to photograph each part and posted them on the intranet along with instructions for assembly, testing, packaging, and shipping.

Advances in information technology are also leading to greater interdepartmental coordination as well as growing linkages between organizations. Thanks to networks and intranets, boundaries between departments within organizations as well as between organizations seem to dissolve, making a division or company across the world seem as close as one down the hall. Networks allow computers to talk to one another about all aspects of business. Such as customer orders, parts requirements, invoices, manufacturing dates, and market share slippage. At ford Motor Company, every car and truck model has its own internal Web site on the intranet to track design, procurement, production, delivery processes, and so forth. Forth, Manufacturing, for example, can immediately see if a new dashboard design will slow assembly and alter engineering of the problem.

Many organizations have long used one specific type of inter organizational linkage, called electronic data interchange (EDI), which ties businesses with suppliers. EDI, which links a computer at one company to a computer at another for the transmission of business data, such as sales statistics, without human interference, can enable businesses to achieve low – cost leadership through rapid re-supply. Companies can save million of dollars by using EDI to coordinate materials movement. How EDI can electronically connect several organization to facilitate trade on both domestic and international levels.

Some large organizations with a low –cost strategy once had difficulty working with small suppliers because the smaller organizations didn't have the financial resources to become EDI – capable. "The guy who supplies our wood pallets has five employees," said Ray Hill of Pitney Bowes." He's not going to go out and buy a mainframe just to do EDI with us." However, recent advances using the internet have allowed many small companies to remain viable by giving them EDI capability they otherwise might not be able to afford. Pitney Bowes uses web product called Vendor Site, which allows suppliers to see how many of its product Pitney has on hand and how many it will need. Eventually, Pitney wants supplier to be able to deliver products just as they are needed.

The automotive Network Exchange. (ANX) is a virtual private network that allows companies in the automotive industry to transmit EDI data over the Web. Taylor Steel's data communications charges dropped by 70 percent after the company started using ANX. Industry analysts predict that use of ANX could slash $1 billion in auto industry costs per year.

DIFFERENTIATION

A way to differentiate a company is to lock in customers with information technology. The innovator of this strategy was American Hospital Supply Corporation. Senior executives decided more than 15 years ago to give computer terminals free to hospital around the country, linking hospital purchasers directly with AHS, enabling customer to directly place order for any of more than 100,000 products. AHS immediately gained sales and market share at competitors' expense.

Today's industry leaders in pharmaceutical drug wholesaling, including McKesson Corp.., cardinal Health, and Bergen Brunswig, Differentiate themselves by providing sophisticated reporting services to their large, national customers. In addition, large drug wholesalers have further locked in customers by developing proprietary automated dispensing and reporting systems, along with consulting services, value-added information services are increasingly used as customer lock-in methods.

Improving customer service can also differentiate a company from competitors. For example, automating the sales force can dramatically reduce the time it takes to close an order as well as increase the rate of successful closes.

Deere Power Systems, a division of John Deere that makes diesel engines and other heavy equipments, found that its salespeople might spend a full day logging into various databases and calling different department for information before going on a call. In the meantime, competitors would step in and beat Deere to the deal. With new information technology, department that once kept information to themselves are sharing it on a network, and a sales person is generally able to get all the information needed for a call in half a day or less.

As another example, Jiffy Lube improved customer service by using an information technology system called Automate to automatically remind customers when routine service is due, suggest auto maintenance based on each manufacturer's recommendations, and store individual customer preferences. If a particular customer never wants the tires filled, the Jiffy Lube associate will know that automatically without the customer having to explain each time he or she comes in for service.

A third dimension of differentiation is new product development or product development for specialized market niches. Companies from General Electric to Manpower Inc. are using the Internet to track market trends and spot new niches. Nike uses an intranet to improve global collaboration for new product development.

IT & ORGANIZATION DESIGN

E – COMMERCE

A primary way many companies are using information technology as a strategic weapon is through electronic commerce, or e-commerce. One only needs to think of Amazon.com, which created huge headaches for bookstores such as Barnes & Noble and Borders---and which has a market value higher than all the bricks-and-mortar bookstores in the world combined – in order to understand the significance of e-commerce in today's business world. E- Commerce can be useful for either a low –cost leadership or a differentiation strategy.

E-commerce is a very broad term, which basically means any commercial activity that takes place by digital processes over a computer network. E-commerce replaces or enhances the exchange of money and product with the exchange of information from one computer to another. As such, applications such as EDI, extranets, and so forth are all aspects of e-commerce. Today, most e-commerce takes place on the intranet. Two aspect of e-commerce are business-to-business transactions and business – to –customer transactions. Market researchers at International Data Corporation predict that the amount of overall e-commerce will top $ 1 trillion by 2003.

One company that has integrated e – commerce into its entire business strategy is Dell Computer Corp., which now offers internet transaction capabilities in thirty – six countries and eighteen languages. Dell uses end –to-end digital networks to keep in touch with customer, take orders, pull together components as needed from suppliers, and assemble and ship customized products directly to the purchaser. The system enables Dell to compete with both cost advantages and speed. For example, by connecting directly with suppliers, Dell can eliminate costly inventory, but the company can frequently obtain needed parts and supplies in a matter of minutes. A customer order placed with Dell t 9 A.M. On Monday can be on a delivery truck by 9 P.M. Tuesday. Similarly Cisco Systems is electronically connected not only to customer and employees but also to supplies, contract manufacturers, assemblers, and other business partners. High-tech companies like Dell and Cisco Systems are leaders in business to – business commerce, but even low-tech companies are getting into the game. U.S. Office Products, a leading supplier of business products and services to companies of all sizes, offers online ordering, checking of order status and tracking, online payment options, and online reporting/usage information. A new feature is a procurement management system that enables USOP to give its customers a way to streamline and control their purchasing process, reduce costs, and improve efficiency. This service differentiates USOP in the highly competitive office product market.

Although business-to-business commerce over the internet is growing rapidly, perhaps the most visible expression of e-commerce is selling products and services directly to consumer over the internet. Until very recently, the internet has been used much more intensively by consumers than by business executives. For example, eToys offers more than 6,000 items from almost 500 manufacturers. Customers choose what they want from the Web Site, type in their credit card numbers, and receive shipments of toys within a few days. The company can do business much less expensively than a company like Toys "R" us that has to maintain buildings, store inventory, and so forth, Other internet companies, such as iVillage, which has become the No. 1 women site on the Web, offer services such as chat with doctor about children's problems or discussion groups about women's business opportunities.

Web sites that offer a place to participate in an online community are increasingly popular. Other rapidly growing areas of e-commerce include finance and insurance, travel, online auctions, and computer sales. Marriott International put together its first online reservation system in 1996 and did $ 1 billion in business the first year. Today, Marriott's interactive Web site is linked to numerous other travel- related sites. The site is personalized for each visitor, averages 15,000 hits a day, and generators more than $ 2 million in internet –related revenues a month. Marriott executives believe its value –added approach differentiates the chain from other hotels and help to build customer loyalty.

Most established organizations are recognizing that they will have to get into the business of e – commerce or be slaughtered by start – up – companies. Companies such as Southwest Airlines, Office Depot, Fingerhut, and even the U.S. Postal Service have established successful e-commerce units. Even such old-line companies as Sears and Whirlpool are jumping on the e-commerce bandwagon. An important consideration for such companies is whether to incorporate a new e-commerce division within the traditional organization or to create a spin off company. Sears CEO Arthur Martinez once considered the internet "the domain of fanatics," but is now investing heavily in new e-commerce division aimed at making Sears the "definitive online source for the home," Although the division is a part of the larger organization, executives are striving to give employees the right combination of freedom and incentives they need to be creative and take the necessary risks. Martinez doesn't believe a spin-off is the only way

to give an e-commerce unit the autonomy it needs to succeed. Whirlpool, on the other hand, created a start-up company called Brandwise.com to help build its Internet-related business. Because the Brand wise site is designed to help consumers find the best products and value, it could potentially lose business for Whirlpool, but the company believes the risks are worth the potential rewards, Whirlpool hopes to gain access to valuable information about its business and customers. In addition, top executives believe the start –up provides a valuable breeding ground for the organization's next generation of leaders, who will need a deep understanding of e-commerce and be skilled at working in "Internet-time".

Although companies in the United States and Canada are the leading participants in e-commerce, the evolution is beginning to affect the way the rest of the world does business as well. European e-commerce, for example, is expected to grow from $5 billion in 1997 to $197 billion in 2002. Scandinavian-based Internet start – ups are competing head –to-head with U.S. based Web giants in Britain as well as the largely untapped cyber markets of Germany, France, and Italy.

INTER-ORGANIZATIONAL RELATIONSHIPS

Even organization that do not use a network structure are rapidly evolving from self-contained, vertical organizations to firms that rely on business partners to fulfill major parts of their company's activities and purpose, helping them cut costs and be more responsive to customers. Many companies today depend on strategic partnership to remain competitive, and electronic connections are a critical aspect of this trend.

Many computers and other high – tech firms are electronically connected to varied manufacturing subcontractors. For example, when a customer places an order for a low – end router on Cisco System's Web site, the order goes directly to Flextronics Ltd. a contract manufacture in San Jose, California. Cisco relies so heavily on outside manufacturers and distributors that it can ship products anywhere in the world within a couple of days without ever touching the product. Nortel Networks has announced that by 2002, it will close or sell seventeen of its twenty – fourth factories – the company has calculated that it can save $300 million a year by outsourcing.

Another significant trend is developing electronic relationships with suppliers and customers Study shows differences between traditional inter-organizational relationship characteristics and emerging relationship characteristic. Traditionally, organizations had an arm's –length relationship with suppliers. However, suppliers are becoming closer partners, tied electronically to the organization for orders, invoices, and payments. In addition, relationships with customers are changing dramatically. New information technology has increased the power of consumer by giving them electronic access to a wealth of information from thousands of companies just by clicking a mouse. Already, 16 percent of new car buyers check dealer prices online before visiting a dealership to shop for a new car.

In addition, by giving consumer direct access to manufactures, the internet has radically altered customer expectations about convenience, speed, and service. For example, N2K.com is giving music lovers a chance to custom-build their own CDs track by track, by downloading music off the internet and storing it in a home audio video server. Continually evolving information technology both responds to and expands the trend toward connectivity and cooperation among organizations and with consumer. Companies that want to thrive in the new "networked" economy have to learn and adapt quickly.

IT IMPACT ON ORGANIZATION DESIGN

Advances in information technology are having a tremendous impact on all organizations in every industry. Some of the implications of these advances for organization design are:

1.   Smaller organizations. Information technology enables organizations to our source many functions and thus use fewer in house resources. The hub of a network organization, for example, may be made up of only a few people. In addition, some internet – based businesses exist almost entirely in cyber-space; there is no formal "organization "in terms of a building with offices, desks, and so forth. One or few people may maintain the site from their homes or a rented work space. Information technology may also enable traditional organizations to do the same amount of work with fewer people, which also contributes to a decline in organization size. For example, Allstate Corp. recently announced the closing of four regional offices and a filed support central as the company begins to do more business through electronic commerce and over the internet. The closing will eliminate at least four thousands jobs.

2.   Decentralized organization structures. Advanced information technology ahs enabled organizations to reduce layers of management and decentralized decision making. Information that may have previously been available only to top managers at headquarters can be quickly and easily shared throughout the organizations. Even across great geographical distances. Managers in varied busin4ss division or offices have the information they need

to make important decision quickly rather than waiting for decision from headquarter. Technologies that enable people to meet and coordinate online can facilitate communication and decision making among distributed, autonomous groups of workers. In addition technology allow for telecommuting, whereby individual workers can perform work that was once done in the office from their computer at home or other remote locations. People and groups no longer have to be located under one roof to collaborate and share information. An organization may be made up of numerous small teams or even individuals who work autonomously but coordinate electronically although management philosophy and corporate culture have a substantial impact on whether information technology is used to decentralized information and authority or to reinforce a centralized authority structure, most organizations today use technology to further decentralization.

3.   Improved internal and external coordination. Perhaps one of the greatest outcomes of advanced information technology is its potential to improve coordination and communication both within the firm and with other organizations. Intranets, extranets, and other networks can connect people even when their offices, factories or stores are scattered around the world. For example, General Motors' intranet, dubbed Socrates on the basis that the Greek Philosopher would be recognized worldwide, connects some 100,000 staff members around the globe. Managers use the intranet to communicate with one another and to stay aware of organizational activities and outcomes. Electronic technology also enables the network organization and other form of organizational interdependence. Recent studies have shown that inter-organizational information networks tend to heighten integration, blur organizational boundaries, and create shared strategic contingencies among firms. Organizations can cooperate and collaborate with other companies no matter where they are geographically located.

4.   Additional professional staff and departments. The implementation of sophisticated information technology systems means that organization needs more people with professional skill and knowledge to use and maintain the system. As we discussed, as organizational technology grows more complex, the complexity of the organization increases as well. Many firms are adding chief information officers, and some create whole new departments to help the organization manage and keep pace with rapidly changing information technology. In addition, when companies become involved in e- commerce, the need for professional staff greatly increases. The only way a company can successfully implement an e-commerce strategy is to crate a separate professional department or division devoted specifically to electronic commerce. Land's End, for example, created a new department headed by a vice – resident of e-commerce to manage its internet business. Sears has more than fifty professionals setting up its new e-commerce division.

5.   Greater employee participation. With today's technology, workers on the front lines can have instant access to pertinent information about their jobs, allowing greater participation and autonomy. For example, at the Chesebrough Ponds Inc. plant in Jefferson City, Missouri, line workers routinely tap into the company's computer network to track shipments, schedule their own workloads, order production increases, and perform other functions that used to be the province of management. Particularly in learning organizations, everyone throughout the company is wired into the computer network and has complete information about all aspects of the business, enabling them to fully participate in solving problems, making decision, and moving the organization forward.

Increasingly sophisticated information technology will continue to have a significant impact on organization deign. Although a few organizations have used technology to reinforce rigid hierarchies, centralized decision making, and routinized work, the trend in general is toward greater decentralization, improved coordination and information sharing, more challenging work, and greater opportunities for participation.

KNOWLEDGE MANAGEMENT

One primary goal for information technology system today is to support efforts to manage and leverage organizational knowledge. Having greater access to information is useless unless that information is put to use to further the goals and success of the organization. In today's economy, the basic economic resources are no longer capital, or labor, or natural resources, but knowledge. Peter Drucker coined the term knowledge work in the early 1960s but only in recent year have mangers begun to recognize knowledge as important resource that should be managed, just as they manage cash flow, human resources, or raw materials, Particularly for companies that are striving to be learning organizations, knowledge management is a critical job for organization executives. Learning organizations effectively acquire, create, and transfer knowledge across the company and modify their activities to reflect new knowledge and insight.

Knowledge management is new way to think about organizing and sharing an organization's intellectual and creative resources, it refers to the efforts to systematically find, organize, and make available a company's intellectual capital and to foster a culture of continuous learning and knowledge sharing so that organizational activities build on what is already known. The company's intellectual capital is the sum of its information, experience, understanding, relationships, processes, innovation, and discoveries. Although information technology plays an important role by enabling the storage and dissemination of data and information across the organization, technology is only one part of a longer puzzle. A complete knowledge management system includes not processes for capturing and storing knowledge and organizing it for easy access, but also ways to generate new knowledge through learning and to share knowledge throughout the organization. Information technology alone is not enough to handle this complex problem.

WHAT IS KNOWLEDGE?

Knowledge is not the same thing as data or information, although it uses both. Data are simple, absolute facts and figures that, in and of them, may be of little use. A company might have data that show 30 percent of a particular product is sold to customers in Florida. To be useful to the organization, the data are processed into finished information by connecting them with other data – for example, nine out of ten of the products sold in Florida are bought by people over the age of sixty. Information is data that have been linked with other data and converted into useful context for specific use. Knowledge goes a step further; it is a conclusion drawn from the information after it is linked to other information and compared to what is already knows. Knowledge, as opposed to information and data, always, has a human factor. Books can contain information, but the information becomes knowledge only when a person absorbs it and puts it to use. Knowledge is based on prior information, hands – on experience, intuition, and understanding – it involves recognizing how to take action on the information to accomplish the organization's goals. For example, a manager might recognize that targeting people over the age of sixty in Florida will double sales, but targeting the same age group in Maine or Minnesota will do nothing but increase marketing costs. Knowledge is something that is in employees' collective brains, not something stored in a database or printed out by an executive information system.

Organizations deal with both explicit knowledge and implicit, or tacit, knowledge. Explicit knowledge is formal, systematic knowledge that can be codified, written down, and passed on to others in documents or general instructions. Tacit knowledge is based on personal experience, rules of thumb, intuition, and judgment. It includes professional know-how and expertise, individual insight and experience, and creative solutions that are often difficult to communicate and pass on to others. Explicit knowledge may be equated with knowing about; whereas tacit knowledge is equated with knowing how. For example, recent graduates of an agricultural college may know about the best times and locations for planting soybeans, the best soils and fertilizers to help ensure a healthy crop, and the appropriate time to harvest the crop. They can test soil samples track weather conditions, calculate the growing period, and plan for harvesting. A third-generation soybean farmer may not know about any of those things. However, the seasoned farmer knows how to row a successful soybean crop, based on years of experience. Such farmers know which fields are best for growing soybeans, when to plant, and how to tend the crop, and they use their judgment to know when crops are ready to harvest, which may or may not be the date the first farmers would have calculated.

If asked to explain how to grow soybeans, the ag-school graduate could write a detailed, scientific report, the third-generation farmer might be unable to provide a set of clear, precise instructions, even though he or she knows how to grow a superb crop. The farmer's expert knowledge is not easily codified. Similarly, in organizations there are many people who know how to do certain things that they might not be able to put into clear, precise instructions for others. For learning organizations, finding ways to transfer both explicit and tacit knowledge – the knowing

about and the knowing how—across the organization is critical. Although explicit knowledge can easily be captured and shared in documents and through information technology systems, as much as 80 percent of an origination's valuable knowledge may be tacit knowledge that is not easily captured and transferred.

APPROACHES TO KNOWLEDGE MANAGEMENT

Knowledge management is not new, but only recently have organization executives begun thinking about deliberate, systematic ways to create, capture, organize, and transfer knowledge. There are three driving forces behind the surge of interest in knowledge management. First, a large part of the momentum comes form the rapid advances in information technology that makes it possible to share explicit knowledge more quickly and easily as well as to connect people in networks for the sharing of tacit knowledge. Second, as the economic basis of organizations shifts from natural resources to intellectual capital, top executives have found it imperative to appraise their organizations' knowledge resources and how to leverage them. Finally, the growing interest in knowledge management is closely related to companies' effort to become learning organizations, in which managers strive to create a culture and a system for crating new knowledge and for capturing both explicit and tacit knowledge and getting it to the right place at the right time. A survey of CEOs attending the World Economic Forum's 1999 annual meeting found that 97 percent of senior executives see knowledge management as critical issue for their organizations.

Critical to both approaches is a cultural mindset that encourages collaboration and knowledge sharing, since knowledge give people power within the organization, there is a strong impulse to hoard rather than share it. Thus knowledge management often requires major culture change. For example, Jorma Ollila, CEO of Nokia Telecommunications, introduced a new cultural direction with the statement, "Knowledge in Nokia is power only when it is shared," Texas Instruments awards the "Not-Invented – Here-But-I-Did-It-Anyway" prize to encourage people to share knowledge.

The first approach to knowledge management deals primarily with the collection and sharing of explicit knowledge, largely through the use of sophisticated information technology systems. Explicit knowledge may include intellectual properties such as patents and licensees, work processes such as policies and procedures, specific information on customers, markets, suppliers or competitor, competitive intelligence reports, benchmark data, and so forth. When an organization uses this approach, the focus is on collecting and codifying knowledge and storing it in databases where it can easily be accessed and reused by anyone in the organization. Knowledge is gathered from the individuals who possess it and is organized into documents that others can access and reuse. This "People-to-document" approach is used by some consulting firms. For example, Ernst & Young collect knowledge such as interview tips, work schedules, benchmark data, and market segmentation analyses and stores them in an electronic database for reuse. The second approach focuses on leveraging individual expertise and knows how – tacit knowledge – by connecting people face-to-face or through interactive media. Tacit Knowledge includes professional know-how, individual insights and creativity, and personal experience and intuition. With this approach,, managers concentrate on developing personal networks that link people together for the sharing of tacit knowledge. Although information technology is used, it primarily supports and facilitates conversion and person – to – person sharing of tacit knowledge. Consider how DPR Construction Inc.., one of the fastest – growing and most successful general contracting businesses in United States, creates and transfers both explicit and tacit knowledge.

MECHANISMS FOR EXPLICIT KNOWLEDGE MANAGEMENT

Organizations can use a number of mechanisms to support the collection and sharing of knowledge resources. Some mechanisms that are particularly useful for explicit knowledge management are data warehousing, knowledge mapping, and electronic libraries. In addition, intranets or other networks for connecting people throughout the organization are important for sharing both explicit and tacit knowledge.

1. Data warehousing and data mining. Data warehousing allows companies to combine all their data into huge databases for easy access, and data mining helps users make sense of the data by searching for patterns that can help solve organizational problems or take advantage of new opportunities. Data warehousing and data mining can be particularly useful for building customer relationships or entering new markets. Kimberly –Clark Corp. has expanded its customer base by using its data warehouse in the business-to-business sector to identify individuals that its distributors sell to and then targeting them with promotional mailings about Kimberly – Clark products. At Ernst & Young, each of the more than forty practice areas has a staff member who helps to codify employees' explicit knowledge and store it in databases, which are linked through a network. An E&Y team preparing a bid to install an ERP system for large industrial manufacturers used the database to search out previously developed solutions. By reusing the material, the team saved Ernst & Young, as well as the client, more than a year of work.

2. Knowledge mapping. Some companies are undertaking knowledge mapping projects that identify where knowledge is located in the organization and how to access it. Although there are varied approaches, the purpose of knowledge mapping is to guide people to knowledge resources within the company. Hughes Space & Communication is building a knowledge expressway using Lotus Notes, Videoconferencing, employees home pages, and numerous other technologies, the map is used to transfer new management practices, track licenses and patents, gather competitive intelligence, and so forth, for example, the engineering group might tap into a " Lessons learned" database using hypertext links to directories, abstracts, and other documents, Hughes also hopes to use knowledge mapping to support tacit knowledge sharing by guiding people to pockets of expertise and fostering communication and storytelling.

3. Electronic libraries, Electronic libraries, databases of specific types of information for specific uses, provide another way to store knowledge and make it available throughout the organization. Users may be able to " check out" and reuse specific pieces of knowledge. For example, Sun Microsystems has crated a shared –code library, a central communication hub from which programmers can check out whole pieces of software code without having to recreate them every time. Sequent Computers Inc. has used an indexed library called Sequent Electronic Corporate Library (SECL) since 1995 to hold sales presentations, technical papers, and so forth. In the United Kingdom, Anglian Water Services is developing an "encyclopedia of water" as part of its efforts to become a learning organization. The electronic encyclopedia contain knowledge about all aspects of water, such as treatment technologies or services management, that has previously been stored in separate books, documents, articles, and process descriptions.

Intranets and other networks are critical tools to give people throughout the organization access to explicit knowledge that is stored in databases, electronic libraries, and so forth. San Jose-based Cadence Design System Inc. uses an in house Web sit for new sales representative that provides a step –by – step guide though the sale process, product specifications, and profiles of customer and leads. The system has helped Cadence get sales reps out into the field two to four months faster, which saves the company millions of dollars. Some companies, including US West, Paradyne Co., and Metropolitans Life insurance, use intranets for gathering competitive intelligence, Salespeople, marketing staff, technicians, and others, in addition to competitive intelligence professionals, post information and views on technologies, customers, product, and industry development.

MECHANISMS FOR TACIT KNOWLEDGE MANAGEMENT
Although tacit knowledge management system also uses information technology, the emphasis is more on human interaction. For tacit knowledge management, effective mechanisms include dialogue, learning histories and storytelling, and communities of practice, also listed in ` 7.6 intranets and networks can also support the sharing of tacit knowledge, particularly in global organizations. For example, Xerox once tried to codify the knowledge of its service technicians and embed it in an expert decision system that was installed in the copiers. The idea was that technicians could be guided by the system and complete repairs more quickly, sometimes even off-site. However, the project failed because it did not take into account the tacit knowledge --- the nuances and details—that could not be codified. After an eighteen-month study by anthropologists, behavioral scientists, and engineers found that service techs shared their knowledge primarily by telling "war stories" Xerox developed a system called "Eureka" to link 25,000 field service representatives, Eureka, which enables technicians to electronically share war stories and tips for repairing copiers, has cut average repair time by 50 percent.

1. **Dialogue**: The primary mechanism for tacit knowledge sharing is to connect people in a dialogue – getting people talking face-to-face, or at least through videoconferencing or other interactive media. The goal of dialogue is to crate a collective intelligence – people together arrive at a shared understanding of a problem and a collective solution that blends the ideas of many people. One way to understand dialogue is to compare it with debate. In a debate, people state and advocate their solutions to problem with the intent to convince others to adopt those solutions. A dialogue, on the other hand, assumes that many people have different pieces of the answer to a problem and that together they can craft a solution. Dialogue focuses on exploring assumptions and discovering common ground and shared issues. Participants in a dialogue do not presume to have a "right" answer because the answer emerges from the collective intelligence of the group. As new and deeper solutions are developed, a trusting relationship is built among the participants, which can transforms communication pattern within the organization.
Some organizations set up forums on an intranet where people can get together and engaged in dialogue about specific problems. Novartis, a $24 billion life sciences company, holds knowledge fairs about four times a year to give scientists and other employees a chance to engage in dialogue face – to –face; then, when they go back to their respective divisions, they pick up the dialogue in Virtual Forums, as described in Taking the Lead box.

Organizations that excel at tacit knowledge management find ways to encourage and facilitate continuous dialogue among employees. For example, a Japanese pharmaceutical company has a tea room where researchers sit down, drink tea, and discuss heir projects with fellow scientists; in this informal, relaxed setting, knowledge that can't be easily written down in documents or stored in a data base is exchanged among professionals. To help encourage dialogue at Data fusion Inc.., an information technology products and consulting services firm in San Francisco, Bipin Junnarkar, President and chief operating officer, has employees take pictures at the business conferences the y attend and then share them with others as a way to recount what they learned at the conference, much like a family uses vacation slid shows or videotapes to recount their experiences to others.

2. **Learning histories and storytelling**. Another approach to tacit knowledge management is to get people to share learning histories, which are designed to get at the history of how critical decisions were made and problems were solved (or not solved) so that knowledge is transferred to others. This techniques is based on the ancient tradition of storytelling – in hunting and gathering societies, for example, young men become successful hunters partly by sharing the story of a big hunt, where each person tells his version of what happened and a shaman comments on the narrative and guides the group to understand the story's significance and why the hunt succeeded or failed. In organization, a learning history is a written narrative of a specific major even or project, based on the recollection and insight of everyone who participated --- managers, line workers, secretaries, even customer and suppliers, each person is quoted directly, and the reminiscences are woven into a compelling story, in addition, a team of learning consultants and organizational employees identifies recurring themes, poses questions about the story's assumptions and implications, and raises, " un discussable" issues that don't' come through in the narrative.
3. **The completed learning history** is used as the basis for discussion groups. The people who were involved re-experience the event and collectively learn its significance. For employees facing similar projects, the learning history provides a way to plan their own activities. A similar approach is the after action review, developed by US. Army which means that participants in project or activity take fifteen minutes or so to talk about what was supposed to happen, what actually happened, why there is a discrepancy between the two, and what can be learned from the experience. These and other varieties of corporate storytelling are increasingly being used to transfer tacit knowledge. When people share their understanding and expertise in stories, it establishes a context for important pieces of knowledge and key decisions that other in the organization may share. Stories, work because they allow people to subtly raise issues that they might be afraid to openly discuss in a more formal way, leading to grater opportunities for learning and sharing knowledge.

4. **Communities of Practice,** Communities of practice from spontaneously in organization as people gravitate toward other who share their interests and face similar problems. Communities of Practice are made up of individuals who are informally bound to one another though exposure to a similar set of problems and a common pursuit of solutions. For example, a community of practice might be copier technician at Xerox who share tips around the water cooler, freelance writers who have coffee once a week and talk about their current projects and problems. A district sales office that has a goal of being the top district office in the country, or people located in various departments of a manufacturing organization who share an interest in computer games. Communities of practice are similar to professional societies --- people join them and stay n them by choice, because they think they have something to learn and something to contribute. Organization cannot manage communities of practice in the traditional sense, but they can encourage and support them to help speed learning and the transfer of knowledge.

Even though true communities of practice cannot be formalized, some organization use the idea to amass and concentrate knowledge and intellectual energy related to specific critical issues. James Euchner, a vice-president in Nynex's research and development department, hired an anthropologist to find out why some groups were so slow to set up data services for customers. She found that different departments involved never communicated informally so they didn't understand one another's roles and needs. Euchner put the workers together in the same room and allowed people to form themselves into informal groups around various tasks and the problem was solved. Similarly, when George Fisher first became CEO of Kodak, he found task forces all over the company trying to find ways to use digital imaging in Kodak's product line. The problems was, the small groups were all separated by functional and divisional boundaries, so they unable to share their knowledge and expertise. At one time, for example, there were twenty – three separate groups working to develop digital scanners. Fisher dismantled the separate task forces and brought everyone working on digital imaging together, and the company quickly began to see result of their collective knowledge.

LEVERAGING PROFESSIONAL KNOWLEDGE AND EXPERTISE
What's the ultimate purpose of all these mechanisms? Why do organization managers encourage and support activities such as dialogue and storytelling? A significant goal of knowledge management system, whether we are

talking about electronic libraries or communities of practice, is to leverage professional knowledge and expertise. Rather than having separate pockets of expertise scattered about the organization, knowledge managements systems aim to bring knowledge together and spread it throughout the company. People can use the knowledge that already exist and build on it to create new knowledge. Consulting firms often set up databases of best practices that include detailed descriptions of projects so that consultants around the world can draw on one another's expertise. Other organization creates electronic libraries so workers can "check out" and reuse previously developed components or solutions. Xerox has estimated that sharing best practices through knowledge management has enabled the company reduce costs by as much as $1 billion.

Mechanisms such as databases, knowledge mapping and electronic libraries are excellent tools for the management and transfer of explicit knowledge that can be codified and written down. However, in order to leverage tacit knowledge --- professional insights and understanding that cannot be stored in a database – organizations use mechanism such as dialogue, storytelling, and communities of practice, when people talk openly about their projects and problems, ideas and solutions often emerge from the collective brain of the group. Technology alone cannot achieve the ambitious goal of leveraging professional knowledge. For example, one large consumer products firm asked all professional staff to document their key work processes in a database. Most employees felt that their jobs were too varied and complex to capture in a set of written procedures, but at the insistence of top management, the task was completed. However, the resulting database was of little use – it simply did not capture the nuances, details, and insights that people needed to improve their work. Although computer technology can be highly useful for leveraging knowledge managers should understand its limitations. In addition, managers should recognize that the ultimate key to leveraging knowledge is changing organizational culture and management practices to encourage and support knowledge sharing.

ORGANIZATION SIZE – IS BIGGER BETTER?

The question of big versus small begins with the notion of growth and the reasons so many organization feel the need to grow large.

PRESSURES FOR GROWTH
In the early 1990s America's management guru, Peter Drucker declared that "the fortune 500 is over"; yet the dream of practically every businessperson is still to have his or her company become a member of the Fortune 500 list --- to grow fast and to grow large. Sometimes this goal is more urgent than to make the best products or show the greatest profits. Some observers believe the United States is entering a new era of "bigness," as companies strive to acquire the size and resources to compete on a global scale, to invest in new technology and to control distribution channels and guarantee access to markets. For example, more than $ 1.6 trillion in mergers took place worldwide in 1997 alone, with over half of the activity in United States.

There are other pressures for organizations to grow. Many executives have found that firms must grow to stay economically healthy. To stop growing is to stagnate. To be stable means that customers may not have their demands met fully or that competitors will increase market share at the expense of your company. Scale is crucial to economic health in marketing-intensive companies such as Coca-Cola and Anheuser –Busch. Greater size give these companies power in the marketplace and thus increased revenues. In addition, growing organizations are vibrant, exciting places to work, which enables these companies to attract and keep quality employees. When the number of employees is expanding, the company can offer many challenges and opportunities for advancement.

LARGE VERSUS SMALL
Organizations feel compelled to grow, but how much and how large? What size organization is better poised to compete in a global environment?

Large: Huge resources and economies of scale are needed for many organizations to compete globally. Only large organization can build a massive pipeline in Alaska. Only a large corporation like Boeing can afford to build a 747, and only a large American Airlines can buy it. Only a large Johnson & Johnson can invest hundreds of millions in new product such as bifocal contact lenses and a birth control patch that delivers contraceptives through the skin. Large companies also are standardized, often mechanistically run, and complex. The complexity offers hundreds of functional specialties within the organization to perform complex tasks and to produce complex products. Moreover, large organizations, once established, can be a presence that stabilizes a market for years. Managers can join the company and expect a career reminiscent of the "organization men" of the 1950s and 1960s. The organization can provide longevity, raises, and promotions.

Small: The competing argument, says small is beautiful because the crucial requirements for success in a global economy are responsiveness and flexibility in fast-changing markets. While the U.S. economy contains many large organizations, research shows that a global trade has accelerated; smaller organizations have become the norm. Since the mid- 1960s most of the then-existing large businesses have lost market share worldwide. Today, fully 96 percent of exporters are small businesses. The economic vitality of the United States, as well as most of the rest of the developed world, is tied to small and mid – sized businesses. Although many large companies have become even larger through merger, they are also less numerous as a result. Countless small businesses have sprung up to fill specialized niches and serve targeted markets. The development of the internet has provided fertile ground for the growth of small firms. In addition, the rapidly growing service sector also contributes to a decrease in average organization size, since most service companies remain small to be more responsive to customers.

The percentage of employees working in large organization continues to decrease. Whereas numerous jobs were wiped out through downsizing at large corporations in the 1980s and 1990s, jobs were springing up in small firms to replace them. Small organization has a flat structure and an organic, free-flowing management style that encourages entrepreneurship and innovation. Today's leading biotechnological drugs, for example were all discovered by small firms, such as Chiron, which developed the hepatitis B vaccines, rather than by huge pharmaceutical companies, such as Merck. Moreover, the personal involvement of employees in small firms encourages motivation and commitment because employees personally identify with the company's mission.

Bio – Company / Small –Company Hybrid: The paradox is that the advantages of small companies enable them to succeed and hence, grow large. Fortune magazine reported that the fastest growing companies in America are small firms characterized by an emphasis on putting the customer first and being fast and flexible in responding to

the environment. Small companies, however, can become victims of their own success as they grow large, shifting to a mechanistic structure emphasizing vertical hierarchies and spawning "organization men" rather than entrepreneurs.

The solution is what Jack Welch, chairman of General Electric, calls the "big company / small – company hybrid" that combines a large corporation's resources and reach with a small company's simplicity and flexibility. The divisional structure, is one way organizations such as General Electric and Johnson & Johnson attain this. By reorganizing into groups of small companies, these huge corporations capture the mind-set and advantages of smallness. Johnson & Johnson is actually a group of 180 separate companies. When a new product is created in one of J&J's fifty-six labs, a new company is created along with it. When he was CEO of power equipment giant Asea Brown Boveri Ldt. (ABB), Percy Barnevik blasted a 200,000 – employee global enterprise into 5,000 units, averaging just forty people each.

Another approach to creating a big company/small company hybrid is called the front/back approach. Rather than dividing the company into separate businesses, each with its own products, and customer, the company is divided into units with different roles. The "back" part of the organization focuses on creating and producing products, and services, while the "front" focuses on integrating and delivering products and services to customers. this approach is becoming increasingly popular among financial services companies such as Merrill Lynch and Fidelity, as well as multiple-product technology firms such as Sun –Microsystems.

Full –Services, global firms, need a strong resources base and sufficient complexity, and hierarchy to serve clients around the world. The development of new organization forms, with an emphasis on decentralizing authority and cutting out layers of the hierarchy, combined with the increasing use of information technology described earlier, is making it easier than ever for companies to be simultaneously large and small, thus capturing the advantages of each. Retail Giants Home Depot and Wal-Mart, for example, use the advantage of size in areas such as advertising, purchasing, and raising capital; however, they also give each individual, store the autonomy needed to serve customers, as if it were a small, hometown shop. Small companies that are growing can also use these ideas to help their organizations retain the flexibility and customer focus that fueled their growth. Howard Schultz, chairman and CEO of Starbucks, refers to achieving "a fragile balance." Starbucks, which grew in a decade from 100 employees to almost 30,000, still allow s local managers to experiment without permission from the top. One experimental coffee drink, Frappuccino, was eventually marketed nationwide and generated $ 100 million in revenue during its first year.

ORGANIZATIONAL CHARACTERISTICS DURING THE LIFE CYCLE

ORGANIZATIONAL LIFE CYCLE
A Useful way to think about organizational grows and change is the concept of an organizational life cycle. Which suggests that organizations are born, grow older, and eventually die, organizational structure, leadership style, and administrative systems follow a fairly predictable pattern through stages in the life cycle. Stages are sequential in nature and follow a natural progression.

STAGES OF LIFE CYCLE DEVELOPMENT
Recent work on organizational life cycle suggests that four major stages characterize organizational development. Each time an organization enters a new stage in life cycle, it enters a whole new ballgame with a new set of rules for how the organization functions internally and how it relates to the external environment.

ORGANIZATION STAGES OF DEVELOPMENT
1. **Entrepreneurial Stage**: When an organization is born, the emphasis is on creating a product and surviving in the marketplace. The founders are entrepreneurs, and they devote their full energies to the technical activities of production and marketing. The organization is informal and non- bureaucratic. The hour of work is long. Control is based on the owners' personal supervisor. Growth is from a creative new product or service. Apple Computer was in the entrepreneurial stage when it was created by Steve. Jobs and Stephen Wozniak in Wozniak's parents' garage. Small internet –based companies such as Homeruns, Peapod, and ShopLink, which sell groceries online, are currently in the entrepreneurial stage.

Crisis: Need for leadership as the organization starts to grow, the larger number of employees causes problems. The creative and technically oriented owners are confronted with management issues, but they may prefer to focus their energies on making and selling the product or inventing new products and services. At this time of crisis, entrepreneurs must either adjust the structure of the organization to accommodate continued growth or else bring in strong managers who can do so. When apple began a period of rapid growth, A.C. Mark Kula was brought in as a leader because neither jobs nor Wozniak was qualified or cared to manage the expanding company.

2. **Collectivity Stage**: If the leadership crisis is resolved, strong leadership is obtained and the organization begins to develop clear goals and direction. Departments are established along with a hierarchy of authority, job assignments, and a beginning division of labor; Employees identify with the mission of the organization and spend long hours helping the organization succeed. Members feel part of a collective, and communication and control are mostly informal although a few formal systems begin to appear. Apple Computer was in the collectivity stage during the rapid growth years from 1978 to 1981. Employees threw themselves into the business as the major product line was established and more than two thousand dealers signed on.

Crisis: need for Delegation. If the new management has been successful, lower-level employees gradually find themselves restricted by the strong top – down leadership. Lower-level mangers begin to acquire confidence in their own functional areas and want more discretion. An autonomy crisis occurs when top managers, who were successful because of their strong leadership and vision, do not want to give up responsibility. Top managers want to make sure that all parts of the organization are coordinated and pulling together, the organization needs to find mechanisms to control and coordinate departments without direct supervision from the top.

3. **Formalization Stage:** The formalization stage involves the installation and use of rules, procedures, and control system, Communication is less frequent and more formal Engineers, human resource specialist, and other staff may be added. Top management becomes concerned with issues such as strategy and planning, and leaves the operations of the firm to middle management. Product groups or other decentralized units may be formed to improve coordination. Incentive systems based on profits may be implemented to ensure that managers work toward what is best for the overall company when effective, the new coordination and control system enable the organization to continue growing by establishing linkage mechanisms between top management and field units. Apple Computer was in the formalization stage in the mid-1980s.

Crisis: Too Much Red Tape, at this point in the organization's development, the proliferation of systems and programs may begin to strangle middle-level executives. The organization seems bureaucratized. Middle management may resent the intrusion of staff people, innovation may be restricted. The organization seems too large and complex to be managed through formal programs. It was at this stage of Apple's growth that jobs resigned from the company and CEO John Sculley took full control to face his own management challenges.

4. **Elaboration Stage:** The solution to the red tape crisis is a new sense of collaboration and teamwork. Throughout the organization, manager develops skills for confronting problems and working together. Bureaucracy may have reached its limit. Social control and self – discipline reduce the need for additional formal controls. Managers learn to work within the bureaucracy with out adding to it. Formal systems may be simplified and replaced by manager teams and task forces. To achieve collaboration, teams are often formed across functions or divisions of the company. The organization may also be split into multiple divisions to maintain a small –company philosophy. Apple Computer is currently in the elaboration stage of the life cycle, as are such large companies as Caterpillar and Motorola.

Crisis: need for revitalization. After the organization reaches maturity, it may enter periods of temporary decline. A need for renewal may occur every ten to twenty years. The organization shifts out of alignment with the environment or perhaps becomes slow moving and over bureaucratized and must go through a stage of streamlining and innovation. Top managers are often replaced during this period. At apple, the top spot has changed hands a number of times as the company struggle to revitalize. CEOs John Sculley, Michael Spindler, and Gilbert Amelio were each ousted by the board as Apple's problems deepened. Now, Stephen Jobs—who had retuned to the company as a special advisor to Amelio—is serving as CEO of the company he founded almost 25 years ago. Many believe jobs have gained the management skills needed to help Apple weather the crisis at this stage and move forward into a new era. He has reorganized the company, weeded out inefficiencies, and refocused Apple on the consumer market. The sleek, jelly –bean colored iMac, one of the hottest computer launches ever, has Apple's sales growing faster than the industry average for the first time in years. However, although jobs have brought life back to Apple, he also must be able to sustain it. If mature organizations do not go through periodic revitalizations, they will decline.

Summary: Eighty –Four percent of businesses that make it past the first year still fail within five years because they can't make the transition from the entrepreneurial stage. The transitions become even more difficult as organizations progress through future stages of the life cycle. Organization that do not successfully resolve the problems associated with these transitions are restricted in their growth, and may even fail. From within an organization, the life cycle crises are very real, as illustrated by the case of Biogen, a small biotechnology company.
As organizations evolve through the four stages of the life cycle, changes take place in structure; control systems, innovation, and goals, the organizational characteristic associated with each stage are summarized in this handout.

Entrepreneurial: Initially, the organization is small, non-bureaucratic, and a one person show. The top manager provides the structure and control system. Organizational energy is devoted to survival and the production of a single product or service.

Organization Characteristics during Four Stages of Life Cycle

	1. Entrepreneurial	**2. Collectivity**	**3. Formalization**	**4. Elaboration**
Characteristic	Non-bureaucratic	Pre-bureaucratic	Bureaucratic	Very Bureaucratic
Structure	Informal, One Person Show	Mostly Informal, Some procedures	Formal Procedures, division of labor, New specialties added	Teamwork within bureaucracy, small-company thinking
Products or Services	Single Product or Service	Major product or Service, with Variations	Line of products or services	Multiple product or service lines
Reward and Control Systems	Personal, paternalistic	Personal contribution to success	Impersonal formalized systems	Extensive tailored to product and department
Innovation	By owner –manager	by employees and Managers	by separate innovation group	by institutionalized R&D department
Goal	Survival	Growth	Internal stability, Market expansion	Reputation, complete organization
Top Management style	Individualistic, Entrepreneurial	Charismatic, Direction-giving	Delegation with Control	Team approach, attack, Bureaucracy

Collectivity: This is the organization's youth. Growth is rapid, and employees are excited and committed to the organization's mission. The structure is still mostly informal, although some procedures are emerging. Strong charismatic leaders like Scott McNealy of Sun Microsystems or Steve Jobs of Apple provide direction and goals for the organization. Continued growth is a major goal.

Formalization: At this point, the organizations are entering midlife, Bureaucratic characteristics emerge. The origination adds staff support groups, formalizes procedures, and establishes a clear hierarchy and division of labor. Innovation may be achieved by establishing a separate research and development department. Major goals are internal stability and markets expansion. Top management has to delegate, but it also implements formal control systems.

At Dell computer, for example, entrepreneurial whiz-kid Michael Dell has hired a cadre of experienced managers to help him develop and implement formal planning, management, and budgeting systems. According to vice chairman Kevin B. Rollins, " Michael realized that he needed professional to run this company, so that he could continue to be a visionary," at the formalization stage, organizations may also develop complementary products to offer a complete product line.

Elaboration: The mature organization is large bureaucratic, with extensive control systems, rules, and procedures. Organization managers attempt to develop a team orientation with in the bureaucracy to prevent further bureaucratization. Top managers are concerned with establishing a complete organization. Organization stature and reputation are important. Innovation is institutionalized through an R&D Department. Management may attack the bureaucracy and streamline it.

Summary: Growing organization move through stages of a life cycle and each stage is associated with specific characteristic of structure, control systems, goals, and innovation. The life cycle phenomenon is a powerful concept used for understanding problems facing organization and how managers can respond in a positive way to move an organization to the next stage.

ORGANIZATION BUREAUCRACY AND CONTROL

As organizations progress through the life cycle, they usually take on bureaucratic characteristics as they grow larger a more complex. The systematic study for bureaucracy was launched by Max Weber, a sociologist who studied government organizations in Europe and developed a frame work of administrative characteristics that that would make large organizations rational and efficient. Weber wanted to understand how organization could be designed to play a positive role in the larger society.

WHAT IS BUREAUCRACY?
Although Weber perceived bureaucracy as a threat to basic personal liberties, he also recognized it as the most efficient possible system of organizing. He predicted the triumph of bureaucracy because of its ability to ensure more efficient functioning of organization in both business and government settings. Weber identified a set of organizational characteristics, listed below, that could be found in successful bureaucratic organization.
Rules and standard procedures enabled organizational activities to be performed in a predictable, routine manner specialized duties meant that each

Weber' Dimension of Bureaucracy and Bases of Organizational Authority

Bureaucracy	Legitimate Bases of Authority
Rules and procedures	Rational –legal
Specialization and division of labor	Traditional
Hierarchy of authority	Charismatic
Technically qualified personnel	
Written communication and records	

Employees had a clear task to perform. Hierarchy of authority provided a sensible mechanism for supervision and control. Technical competence was the basis by which people were hired rather than friendship, family ties, and favoritism that dramatically reduced work performance. The separation of the position from the position holder meant that individuals did not own or have an inherent right to the job, thus promoting efficiency, Written records provided an organizational memory and continuity over time.

Although bureaucratic characteristics carried to an extreme are widely criticized today, the rational control introduced by Weber was a significant idea and a new form of organization. Bureaucracy provided many advantages over organization forms based upon favoritism, social status, family connections, or graft, which are often unfair, for example, in Mexico, a retired American lawyer had to pay a $ 500 bribe to purchase a telephone, and then discovered that a government official had sold hi telephone number to another family. In china, the tradition of giving government posts to relatives is widespread even under communism. China's emerging class of educated people doesn't like seeing the best jobs going to children and relatives of officials. By comparison, the logical and rational form of organization described by Weber allows work to be conduced efficiently and according to established rules.

SIZE AND STRUCTURAL CONTROL
In the filed of organization theory, organization size has been described as an important variable that influences structural design and methods of control. Should an organization become more bureaucratic as it grow larger? In what size organizations are bureaucratic characteristic most appropriate? More than one hundred studies have attempted to answer these questions. Most of these studies indicated that large organization is different from small organization along several dimensions of bureaucratic structure, including formalization, centralization, and personnel rations.

Formalization and Centralization: Formalization refers to rules, procedures, and written documentation, such as policy manuals and job description that prescribed the rights and duties of employees. The evidence supports the conclusion that large organizations are more formalized. The reason is that large organizations rely on rules, procedures, and paperwork to achieve standardization and control across their large numbers of employees and departments, whereas top managers can use personal observation to control a small organization.

Centralization refers to the level of hierarchy with authority to make decision. In centralized organizations, decision, tends to be made at the top, in decentralized originations, similar decisions would be made at lower level.
Decentralization represents a paradox because, in the perfect bureaucracy, all decision would be made by the top administrator, who would have perfect control. However, as an organization grows larger and has more people and

departments, decision cannot be passed to the top, or senior manager would be overloaded. Thus, the research on organization size indicates that larger organization permit greater decentralization. Hewlett-Packard decentralization almost every aspect of its business to speed up decision making in small startup organizations, on the other hand, the founder or top executive is often involved in every decisions, large and small.

Personnel Ratios: Another characteristic of bureaucracy is personnel ratio for administrative, clerical, and professional support staff. The most frequently studied ratio is the administrative ratio. Two patterns have emerged. The first is that the ratio of top administration to total employees actually smaller in large organizations, indicating the organizations experience administrative economies as they grow larger. The second pattern concern clerical and professional support staff ratios. These groups tend to increase in proportion to organization size. The clerical ratio increases because of the greater communication and reporting requirements needed as organization grow larger. The professional staff ratio increases because of the greater need for specialized skills in larger, complex organizations.

As organization increase in size, the administrative ratio declines and the ratios for other support groups increase. The net effect for direct workers is that they decline as percentage of total employees. In summary, while top administrators do not make up a disproportionate number of employees in large organizations, the idea that proportionately greater overhead is required in large organization is supported. Although large organizations reduced overhead during the difficult economic years of the 1980s, recent studies indicate that over head costs for many American corporations began creeping back up again as revenues soared during the late 1990s, keeping costs for administrative, clerical, and professional support staff low represents an ongoing challenge for today's large organizations.

BUREAUCRACY IN A CHANGING WORLD

Weber's Prediction of the triumph of bureaucracy proved accurate. Bureaucratic characteristics have many advantaged and have worker extremely well for many of the needs of the industrial age. By establishing a hierarchy of authority and specific rules and procedures, bureaucracy provided an effective way to bring order to large groups of people and prevent abuses of power. Impersonal relationships based on roles rather than people reduced the favoritism and nepotism characteristic of much preindustrial organization. Bureaucracy also provided for systematic and rational ways to organize and mange tasks too complex to be understood and handled by a few individuals, thus greatly improving the efficiency and effectiveness of large organization.

The world is rapidly changing, however, and machinelike bureaucratic systems of the industrial age no longer work so well as organizations face new challenges. With global competition and uncertain environment, many organizations are fighting against increasing formalization and professional staff ratios. The problems caused by large bureaucracies have perhaps nowhere been more evident than in U.S. government. From the bureaucratic obstacles to providing emergency relief following Hurricane Andrew to the bungling by U.S. Marshal's Service that put a convicted drug kingpin back on the streets, such action by federal government agencies show how excessive bureaucracy and impede the effectiveness and productivity of organizations.

Today, large organization are cutting layers of the hierarchy, keeping headquarters staff small, and giving lower – level workers greater freedom to make decisions rather than burdening them with excessive rules and regulations. At Nucor Corp, Headquarters is staffed by only twenty – three people. Nucor's plant managers handle everything from marketing to personnel to production. Centex corporation, which has annual revenues of about $3.8 billions, is run from a modest headquarter in Dallas by a staff of fewer than one hundred. Centrex decentralizes authority and responsibility to the operating divisions. The point is to not overload headquarters with lawyers, accountants, and financial analysts who will overload inhibit the flexibility and autonomy of divisions. Of course, many companies must be large to have sufficient resources and complexity to produce products for a global environment, but companies such as Johnson & Johnson, Wal-Mart, 3M, Coca –Cola, Emerson Electric, and Heinz are striving toward

DYNAMIC CONTROL SYSTEMS
1. **Bureaucratic Control:**
–   Rules, standards, hierarchy, legitimate authority
2. **Market Control:**
–   Prices, competition
3. **Clan Control:**
–   Tradition, shared values, trust

ORGANIZATIONAL CULTURE

Process Controls
1.   Feed forward control
2.   Concurrent control
3.   Feedback control

The popularity of the organizational culture topic raises a number of questions. Can we identify cultures? Can culture be aligned with strategy? How can cultures be managed or changed? The best place to start is by defining culture and explaining how it can identify in organizations.

WHAT IS CULTURE?
Culture is the set of values, guiding beliefs, understandings, and ways of thinking that is shared by members of an organization and taught to new members as correct. It represents the unwritten, felling part of the organization. Everyone participates in culture, but culture generally goes unnoticed. It is only when organizations try to implement new strategies or programs that go against basic culture norms and values that they come face to face with the power of culture.

Organizational culture exists at two levels. On the surface are visible artifacts and observable behaviors. --- The ways people dress and act and the symbols, stories, and ceremonies organization members share. The visible elements of culture, however, reflect deeper values in the minds of organizations members. These underlying values, assumptions, beliefs, and thought processes are the true culture. For example, at Southwest Airlines, red "LUV" hearts emblazon the company's training manuals and other materials. The hearts are a visible symbol; the underlying value is that "we are one family of people who truly care about each other," the attributes of culture display themselves in many ways but typically evolve into a patterned set of activities carried out through social interactions. Those patterns can be used to interpret culture.

EMERGENCE AND PURPOSE OF CUTLURE
Culture provides members with a sense of organizational identity and generates a commitment to beliefs and values that are larger than themselves. Though ideas that become part of culture can come from anywhere within the organization, an organization's culture generally begins with a founder or early leader who articulates and implements particular ideas and values as a vision, philosophy, or business strategy, when these ideas and values lead to success, the become institutionalized, and an organizational culture emerges that reflects the vision and strategy of the founder or leader, as it did at SAS institute?

Culture serves two critical functions in organizations; (1) to integrate members so that they know how to relate to one another, and (2) to help the organization adapt to the external environment. Internal integration means that members develop a collective identity and know how tow work together effectively, it is culture that guides day-to-day working relationships and determines how people communicate within the organization, what behavior is acceptable or not acceptable, and how power and status are allocated, External adaptation refers to how the organization meets goals and deals with outsiders. Culture helps guide the daily activities of workers to meet certain goals. It can help the organization respond rapidly to customer needs or the moves of a competitor.

ORGANIZATIONAL DESIGN AND CULTURE

INTERPRETING CULTURE
To identify and interpret the content requires that people make inferences based on observable artifacts. Artifacts can be studied but are hard to decipher accurately. A ceremony in one company may have a different meaning that in another company. To discipline what is really going on in an organization requires detective work and probably some experience as an insider. Some of the typical and important observable aspects of culture are rites and ceremonies, stories, symbols, and language.

Rites and Ceremonies: Important artifacts for culture are rites and ceremonies. the elaborate, planned activities that make up a special event and are often conducted for the benefit of an audience. Managers can hold rites and ceremonies to provide dramatic examples of what a company values. These are special occasions that reinforce specific values, create a bond among people for sharing an important understanding, and anoint and celebrate heroes and heroines who symbolize important beliefs and activities.

Four types of rites that appear in organizations are hereunder. Rises of passage facilitate the transition of employees into new social roles. Rites of enhancement create stronger social identities and increase the status of employees. Rites of renewal reflect training and develop activities that improve organization functioning. Rites of integration create common bonds and good feelings among employees and increase commitment to the organization. The following examples illustrate how these rites and ceremonies are used by top managers to reinforce important cultural values.

- In major bank, election as officers was seen as the key event in a successful career, a series of activities accompanied every promotion to bank officer, including a special method of notification, taking the new officers to the officers' dining room for the first time, and the new officer buying drinks on Friday after his or her notification. This is a rite of passage.

- Mary Kay Cosmetic Company holds elaborate awards ceremonies, presenting gold and diamond pins, furs, and pink Cadillac's to high – achieving sales consultant. The most successful consultants are introduced by film clips, such as the kind used to introduce award nominees in the entertainment industry. This is a rite of enhancement.

- An important annual event at McDonald's is the nationwide contest to determine the best hamburger cooking team in the country. The contest encourages all stores to reexamine the details of how they cook hamburgers.

Stories: Stories are narratives based on true events that are frequently shared among organizational employees and told to new employees to inform them about an organization. Many stories are about company heroes who serve as models or ideals for serving cultural norms and values. Some stories are considered legends because the events are historic and may have been embellished with fiction details. Other stories are myths, which are consistent with the fictional details. Other stories are myths, which are consistent with the values and beliefs of the organization but are not supported by facts. Stories keep alive the primary values of the organization and provide a shared understanding among all employees. Example of how stories shape culture is as follows.

- At 3M Corp.., the story is told of a vice – president who was fired early in his career for persisting with a new product even after his boss had told him to stop because he thought it was a stupid idea. After the worker was fired, he stayed in an unused office, working without a salary on the new product idea. Eventually he was rehired, the product was a success, and he was promoted to vice president. The story symbolizes the 3M value of persisting in what you believe in.

- One FedEx story concerns a delivery person who had misplaced the key to a FedEx drop box. Rather than allow the packages to be late, the employee uprooted the box, put it in his delivery truck, and rushed it back to the sorting station, where they were able to pry it open and get the contents to their destination the following day. By telling this story, FedEx workers communicate the importance of putting the customer first.

Symbols: Another tool for interpreting culture is the symbol. A symbol is something that represents another thing. In one sense, ceremonies, stories, slogans, and rites are all symbols. They symbolize deeper values of an organization. Another symbol is a physical artifact of the organization. Physical symbols are powerful because they focus attention on specific item. Examples of physical symbols are as follows.

- Nordstrom department store symbolizes the importance of supporting lower – level employees with the organization chart. Nordstrom's is known for its extraordinary customer service, and the organization chart

symbolizes that managers are to support the employees who give the service rather than be managers who control them.

- At St. Luke's , London advertising agency, the office layout symbolizes the company's commitment to values of openers, equality, flexibility, and creativity, there are no individual desk and personal work space; teams gather in large, client – specific brand rooms to generator ideas for new accounts and store work in progress.

Language: The final techniques for influencing culture are language. Many companies use a specific saying, slogan, metaphor, or other form of language to convey special meaning to employees. Slogans can be readily picked up and repeated by employees as well as customers of the company. Bank one promotes its emphasis on customer service though the slogan, " Whatever it takes," bank one's culture encourages employees to do whatever it takes to exceed customer expectations. Other significant uses of language to shape culture are as follows;

- T.J. Watson, Jr., son of the founder of international Business Machines, used the metaphor "Wild ducks" to describe the type of employees needed by IBM. His point was, "you can make wild ducks tame, but you can never make tame ducks wild again," Wild ducks symbolized the freedom and opportunity that must be available to keep from taming creative employees at IBM.

Recall that culture exists at two levels – the underlying values and assumptions and the visible artifacts and observable behaviors. The slogans, symbols, and ceremonies just described are artifacts that reflect underlying company values, these visible artifacts and behaviors can be used by mangers to shape company values and to strengthen organizational culture.

Corporate culture should reinforce the strategy and structural design that the organization needs to be effective within its environment. For example, if the external environment requires flexibility and responsiveness, such as the environment for emerging internet – based companies, the culture should encourage adaptability; the correct relationship among cultural values, organizational strategy and structure, and the environment is associated with four categories of culture, which are illustrated. These categories are based on two factors; (1) the extent to which the competitive environment requires flexibility or stability, and (2) the extent to which the strategic focus and strength is internal or external. The four categories associate with these differences are adaptability / entrepreneurial, mission, clan, and bureaucratic. Each of the four cultures can be successful, depending on the needs of the external environment and the organization's strategic focus.

THE ADAPTABILITY / ENTREPRENEURIAL CULTURE
The adaptability / entrepreneurial culture is characterized by strategic focus on the external environment through flexibility and change to meet customer needs, the culture encourages norms and beliefs that support the capacity of the organization to detect, interpret, and translate signals from the environment into new behavior responses, this type of company, however, doesn't just react quickly to environmental changes – it actively creates change. Innovation, creativity, and risk – taking are valued and rewarded.

An example of the adaptability / entrepreneurial culture is 3 M, a company whose values promote individual initiative and entrepreneurship. All new employees attend a class on risk – taking, where they are told to pursue their ideas even if it means defying their supervisors, Acxiom Corp.., based in Conway, Arkansas, began changing to an adaptability / entrepreneurial culture in the early 1990s. After years of rapid growth and an explosion of interest in data management products and services, managers discovered that the company's culture, which emphasized internal efficiency, consistency in following established rules and procedures, and top – down decision making, was no longer suitable to meet the demands, of the rapidly changing environment. Acxiom shifted to an external focus emphasizing the importance of employee's empowerment, flexibility, and initiative. Most e – commerce companies, such as eBay, Drugstore.com and Buy.Com, as well as companies in the marketing, electronics, and cosmetics industries, use this type of culture because they must move quickly to satisfy customers.

THE MISSION CULTURE
An organization concerned with serving specific customers in the external environment, but without the need for rapid change, is suited to the mission culture. The mission culture is characterized by emphasis on a clear vision of the organization's purpose and on the achievement of goals, such as sales growth, profitability, or market share, to help achieve the purpose. Individual employees may be responsible for a specified level of performance, and the organization promises specified rewards in return. Managers shape behavior by envisioning and communicating a descried future state for the organization. Because the environment is stable, they can translate the vision into

measurable goals and evaluate employee performance for meeting them. In some cases, mission cultures reflect a high level of competitiveness and profit – making orientation.

One example is PepsiCo, where former CEO Wayne Calloway set a vision to be the best consumer products company in the world. Managers who met the high performance standards were generously rewarded – first class air travel, fully loaded company cars, stock option, bonuses, and rapid promotion. Annual performance reviews focus specifically on meeting performance goals, such as sales target or marketing goals. Another example of a mission culture is Nucor Corp…, a steel company with headquarters in Charlotte, North Carolina; Nucor keeps employees focused on bottom –line profits and long – term survival. It asks its manages to produce more steel for less money and rewards them well for doing.

THE CLAN CULTURE
The clan culture has a primary focus on the involvement and participation of the organization's members and on rapidly changing expectations, from the external environment. This culture is similar to the clan form of control. More than other, this culture focuses on the needs of employees as the route to high performance, involvement and participation create a sense of responsibility and owner ship and hence, greater commitment to the organization.

The most important value is taking care of employees and making sure they have whatever they need to help them be satisfied as well as productive. By taking care of employees, SAS is able to adapt to competition and changing markets. The creativity of employees is highly valued at SAS, where more than 30 percent of revenues are plowed back into research and development. Companies in the fashion and retail industries also use this culture because it releases the creativity of employees to respond to rapidly changing tastes.

THE BUREAUCRATIC CULTURE
The bureaucratic culture has an internal focus and consistency orientation for a stable environment. This organization has a culture that supports a methodical approach to doing business. Symbols, heroes, and ceremonies support cooperation, tradition, and following established policies and practice as a way to achieve goals, Personal involvement is somewhat lower here, but that is out weighed by a high level of consistency, conformity, and collaboration among members. This organization succeeds by being highly integrated and efficient.

One example of a bureaucratic culture is Safeco Insurance Company, Considered by some to be stuffy and regimented. Employees take their coffee breaks at an assigned time, and the dress codes specify white shirts and suits for men and no bards. However, employees like this culture. Reliability counts. Extra work is not required. The culture is appropriate for the insurance company. Which succeeds because it can be trusted to deliver on insurance polices as agreed.

CULTURE STRENGTH AND ORGANIZATIONAL SUBCULTURES
A strong organizational culture can have a powerful impact on company performance. Culture strength refers to the degree of agreement among members of an organization about the importance of specific values. If widespread consensus exists about the importance of those values, the culture is cohesive and strong; if little agreement exists, the culture is weak.

A strong culture is typically associated with the frequent use of ceremonies, symbols, stories, heroes, and slogans, these elements increase employee commitment to the values and strategy of a company. In addition, managers who want to create and maintain strong corporate cultures often give emphasis to the selection and socialization of employees. For example, at Southwest Airlines, prospective employees are subjected to rigorous interviewing. Sometimes even by Southwest's regular customers, so that only those who fit the culture are hired. At Trilogy Software, Inc.., one of today's fastest –growing software companies, selection and socialization of new employees is a company wide mission, as descried in the Taking the Lead Box.

However, culture is not always uniform throughout the organization. Even in organizations that have strong cultures, there may be several sets of subcultures, particularly within large organizations. Subcultures develop to reflect the common problems, goals, and experiences that members of a tem, department, or to the unit share. An office, branch, or unit of a company that is ph6ysically separated from the company's main operations may also take on a distinctive subculture.

For examples, although the dominant culture of an organization may be a mission culture, various departments may also reflect characteristic of adaptability / entrepreneurial, clan or bureaucratic cultures. The manufacturing department of a large organization may thrive in an environment that emphasizes order, efficiency, and obedience to rules, whereas the research and development department may be characterized by employee empowerment, flexibility, and customer focus. This is similar to the concept of differentiation, where employees in manufacturing, sales, and research departments studied by Paul Lawrence and Jay Lorsch developed different values with respect to time horizon, interpersonal relationships, and formality in order to perform the job of each particular department most effectively. The credit division of Pitney Bowes, a huge corporation that manufactures postage meters, copies, and other office equipment, developed a distinctive subculture to encourage innovation and risk – taking. Subcultures typically include the basic values of the dominant organizational cultural plus additional values unique to members of the subculture. However, sub cultural differences can sometimes lead to conflicts between departments, especially in organization that do not have strong overall corporate cultures. When sub cultural values become too strong and outweigh the corporate cultural values, organizational performance may suffer.

CULTURE AND LEARNING ORGANIZATION

One of the primary characteristics of learning organization is a strong organizational culture. In addition, the culture of a learning organization encourages change and adaptation. A danger for much successful organization is that the culture becomes set and the company fails to adapt as the environment changes. When organizations are successful, the values, ideas, and practices that helped attain success become institutionalized, as the environment changes; these values may become detrimental to future performance. Many organizations become victims of their own success, clinging to outmoded and even destructive values and behaviors. Durk Jager, the new CEO of Procter & Gamble, is struggling to change a rigid culture that insists on "the P&G way of doing things," P&G typically is a great American company, but it has stopped growing. Whereas many competitors take only months to move new products from idea to the market, P&G typically takes five years. Jager wants to create a culture that encourages speed, innovation and initiative. In one training video, he admonishes employees to trash their Current Best Approaches Manuals – long a mainstay at P&G – and think for themselves.

Thus the impact of a strong organizational culture may not always be positive. Some organizations have cultures that encourage a healthy adaptation to the external environment while other has cultures that encourage rigidity and stability. Learning organization has strong, adaptive cultures that incorporate the following values.

1. The whole is more important than the part and boundaries between parts are minimized. In learning organization, people are aware of the whole system, how everything fits together, and the relationships among various organizational parts. Everyone considers how their actions affect other parts and the total organization. This emphasis on the whole reduces boundaries both within the organization and with other companies. Although subcultures may form, everyone's primary attitudes and behaviors reflect the organization's dominant culture. The free flow of people, ideas, and information allows coordinated action and continuous learning. At the Mayo Clinic, founded more than a century ago in Rochester, Minnesota, team work permeates the clinic's organizational culture. Doctors are expected to consult with doctors in other departments, with the patient, and with any aspect of a patient's problem. Collaboration and sharing of ideas and information is incorporated into everything Mayo does, from diagnosis and surgery to policy making, strategy planning, and leadership.

2. Equality is a primary value. The culture of a learning organization creates a sense of community and caring for one another. The organization is a place for creating a web of relationships that allow people to take risks and develop to their full potential. Activities such as assigned parking spaces and executive dining rooms that create status differences are discarded. At fastenal Co. in Winona, Minnesota, CEO Bob Kierlin has no reserved parking space and often sorts the mail himself. Kierlin treats all his employees the same, whether you're a janitor or a vice-president. The sense of equality and fairness is a core element of Fastenal's culture. The emphasis on treating every one with care and respect creates a climate of safety and trust that allows experimentations, frequent mistakes and learning.

3. The culture encourages risk taking, changing, and improvement. A basic value of learning organization is to question the status quo. Constant questioning of assumptions opens the gates to creativity and improvement. The culture rewards and celebrates the creators of new ideas, product, and work processes. To symbolize the importance of taking risks, a learning organization culture may also reward those who fail in order to learn and grow.

The culture of learning organization encourages openness, boundary less ness, equality, continuous improvement, and risk – taking. Even though the internal culture is strong, the cultural values encourage a healthy adaptation to a changing external environment. Adaptive corporate cultures have different values and behavior pattern than un-adaptive cultures. In adaptive cultures, managers are concerned with customers and employees as well as the internal processes and procedures that bring about useful change. Behavior is flexible and managers initiate change when needed, even if it involves risk. In unadaptive cultures, managers are more concerned about themselves or their own special projects, and their values discourage risk – taking and change. Thus, strong healthy culture, such as those in learning companies, help organizations adapt to the external environment, whereas strong unhealthy cultures can encourage an organization to march resolutely in the wrong direction. As discussed in Book Mark 9.0. A strong adaptive culture is a key determining factor in the success of companies such as Wal – Mart, Johnson & Johnson, and Hewlett-Packard. Netscape Communications, recently acquired by America online, reflects the values of a strong, adaptive organizational culture.

Adaptive Versus Non-Adaptive Corporate Cultures

	Adaptive Corporate Culture	Unadaptive Corporate Culture
Core Values	Managers care deeply about customers, stockholders, and employees. they also strongly value people and processes that can create useful change(for example, leadership initiatives up and down the management hierarchy)	Managers care mainly about themselves, their immediate work group, or some product (or technology) associated with that work group. They value the orderly and risk – reducing management process much more highly than leadership initiatives.
Common Behavior	Managers pay close attention To all their constituencies. Especially customers, and Initiate change when needed To serve their legitimate Interest, even if it entails Taking some risks	Managers tend to be somewhat Isolated, political, and bureaucratic, as a result, they do change their strategies quickly to adjust to or take advantage of changes in their business environments

ETHICAL VALUES IN ORGANIZATIONS

Of The values that make up an organization's culture, ethical values are now considered among the most important. Ethical standards are becoming part of the formal policies and informal cultures of many organizations, and courses in ethics are taught in many business schools. Ethics is the code of moral principles and values that govern the behaviors of a person or group with respect to what is right or wrong. Ethical values set standards as to what is good or bad in conduct and decision making.

Ethics is distinct from behaviors governed by law. The rule of law arises from a set of codified principles and regulations that described how people are required to act, are generally accepted in society, and are enforceable in the courts.

The relationship between ethical standards and legal requirement is illustrated below. Ethical standards for the most part apply to behavior not covered by the law, and the rule of law covers behaviors not necessarily covered by ethical standards. Current laws often reflect combined moral judgment, but not all moral judgment are codified into law, the morality of aiding a drowning person, for example, is not specified by law, and driving on the right-hand side of the road has no moral basis; but in areas such as robbery or murder, rules and moral standards overlap.

Unethical conduct in organizations is surprisingly widespread. More than 54 percent of human resources professional polled by the society for Human Resources Management and the Ethics Resources Centre reported observing employees lying to supervisor or coworkers, falsifying reports or records, or abusing drugs or alcohol while on the job. Many people believe that if you are not breaking the law, then you are behaving in an ethical manner, but ethics often go far beyond the law. Many behaviors have not been codified, and managers must be sensitive to emerging norms and values about those issues. Managerial ethics are principles that guide the decisions and behaviors of manager with regard to whether they are right or wrong in a moral sense. The notion of social responsibility is an extension of this idea and refers to management's obligation to make choices and take action so that the organization contributes to the welfare and interest of society as well as to itself.

Examples of the need for managerial ethics are as follow.
- The supervisor of a travel agency was aware that her agents and she could receive large bonuses for booking one hundred or more clients each month with an auto rental firm, although clients typically wanted the rental agency selected on the basis of lowest cost.
- The executive in charge of a parts distribution facility told employees to tell phone customers that inventory was in stock even if it was not. Replenishing the item only took one to two days, no one was hurt by the delay, and the business was kept from competitors.
- The project manager for a consulting project wondered whether some facts should be left out of a report because he marketing executives paying for the report would look bad if the facts were reported.
- A North American manufacturer operating abroad was asked to make cash payments (a bribe) to government officials and was told it was consistent with local customs, despite being illegal in North America.

These issues are exceedingly difficult to resolve and often represent dilemmas. An ethical dilemma arises when each alternative choice or behavior seems undesirable because of a potentially negative ethical consequence. Right or wrong cannot be clearly identified. These choices can be aided by establishing ethical values within the organizations as part of corporate culture. Corporate culture can embrace the ethical values needed for business success.

SOURCES OF ETHICAL VALUES IN ORGANIZATIONS
The standards for ethical or socially responsible conduct are embodied within each employee as well as within the organization itself. In addition, external stakeholders can influence standards of what is ethical and socially responsible. Individual beliefs and values, a person's ethical decision framework, and moral development influence personal ethics, organization culture, as we have already discussed, shape the overall frame work of values within the organization. More ever, formal organization system influence values and behaviors according to the organization's policy framework and reward systems.

Companies also respond to numerous stakeholders in determining what is right. They considers how their actions may be viewed by customers, government agencies, shareholders, and the general community, as well as the impact each alternative course of action may have on various stakeholders. All of these factors can be explored to understand ethical decision in organization.

PERSONAL ETHICS
Every individual brings a set of personal beliefs and values into the workplace. Personal values and the moral reasoning that translates these values into behavior are an important aspect of ethical decision making in organization.

The family backgrounds and spiritual values of mangers provide principles by which they carry out business. In addition, people go through stages of moral development that affect their ability to translate values into behavior. For example, children have a low level of moral development, making decisions and behaving to obtain rewards and avoid physical punishment. At an intermediate level of development, people learn to conform to expectations of goods behavior as defined by colleagues and society. Most managers are at this level, willingly upholding the law and responding to societal expectation. At the highest level of moral development are people who develop an internal set of standards. These are self – chosen ethical principles that are more important to decision than external expectations. Only a few people reach this high level, which can mean breaking laws if necessary to sustain higher moral principles.

The other personal factor is whether managers have developed an ethical framework that guides their decisions. Utilitarian theory, for example, argues that ethical decisions should be made to generate the greatest benefits for the largest number of people. This frame work is often consistent with business decisions because cost and benefit can be calculated in dollars. The personal liberty frame work argues that decision should be made to ensure the greatest possible freedom of choice and liberty for individuals. Liberties include freedom to act on one's conscience, free speech, due process, and the right to privacy. The distributive justice framework holds that moral decisions are those that promote equity, fairness, and impartiality with respect to distribution of rewards and the administration of rules, which are essential for social cooperation.

ORGANIZATIONAL CULTURE
Rarely can ethical or unethical business practices e attributed entirely to the personal ethics of single individual. Because business practice reflects the values, attitudes, and behavior patterns of an organization's culture, ethics is much an organizational issue as a personal one. To promote ethical behavior in the workplace, companies, should make ethics an integral part of the organization's culture. At Certified Transmission Rebuilds, a small company based in Omaha, Nebraska, the culture is built on putting the customers' interests first. Employees receive ongoing in – house training to developed "honest communication" skills. Owner Peter Fink doesn't pay diagnostician on commission because he doesn't wan that to influence their decisions. Customers who have had their transmission repaired at Certified are asked to bring the car back in fifteen days for a free re-check to make sure everything is working right, even though the process is expensive and time – consuming. If Certified has to redo any work, it provides the customer with a rental car, plus the additional work, at no charge. Fink has built a highly successful business by giving customers the assurance that they're not paying for repair they don't really need.

One large company in which ethical standards are embedded in the organizational culture is Johnson & Johnson. Although the company's handling of the Tyienol poisoning incident has sometimes been attributed to the ethical standards of then CEO James Burke, Burke himself has pointed out that the decision in connection with crisis reflected as set of values and principles that has been deeply ingrained throughout the company since its early days.

ORGANIZATIONAL SYSTEMS
The third category of influences that shape managerial ethics is formal organizational systems. This includes the basic architecture of the organization, such whether ethical values are incorporated in polices and rules; whether an explicit code of ethics is available and issued to members; whether organizational rewards, including praises, attention, and promotion, are linked to ethical behavior; and whether ethics is a consideration in the selection and training of employees. These formal efforts can reinforce ethical values that exist in the informal culture.

Today more and more companies are establishing formal ethics programs, for example, after being maligned by the national press and pursued by federal officials for questionable billing practices and fraud, Colombia / HCA. Healthcare Corp.., an $ 18.8 billion hospital chain based in Nashville, Tennessee, brought in a new management team to clean up the mess and make sure similar ethical and legal problems never happen again. When he was hired as senior vice-president of ethics, compliance, and corporate responsibility, Alan R. Yuspeh found only a rudimentary compliance program and s set of perfunctory ethical guidelines that no one could understand. Yuspeh drafted a clean and concise code of conduct that emphasized the values of compassion, honesty, fairness, loyalty, respect, and kindness, then posted it on the intranet for comment from the company's entire work force. The final version was distributed to all 285,000 Columbia / HCA employees. In addition, Yuspeh developed a massive ethics

program that includes comprehensive training for all employees and an ethics hotline that answers about 1,200 employee calls annually.

ETHICS

Managerial ethics and social responsibility are influenced by a variety of external stakeholders, groups outside the organization that have a stake in the organization's performance. Ethical and socially responsible decision making recognizes that the organization is part of a larger community and considers the impact of a decision or action on all stakeholders. Important external stakeholders are government agencies, customers, special interest groups such as those concerned with the natural environment, and global market forces.

Companies must operate within the limits of certain government regulations, such as safety laws, environmental protection requirements, and many other laws, and regulations. At Columbia / HCA, part of the training program is designed to make sure all employees are familiar with health care laws and regulations. Customers are concerned about the quality, safety, and availability of goods and services. For example, even though Dow Corning has an ambitious ethics program, the company's reputation as an ethical company was seriously damaged by the failure to keep customers satisfied with the safety of its silicone breast implants.

Special interest groups continue to be one of the largest stakeholder concerns that companies face. Today, those concerned with corporate responsibility to the natural environment are particularly vocal. Thus, environment is becoming an integral part of organizational planning and decision making for leading companies. The concept of suitable development, a dual concern for economic growth and environmental sustainability, has been gaining ground among many business leaders. The public is no longer comfortable with organization focusing solely on profit at the expense of the natural environment. Environmental sustainability meaning that what is taken out of the environmental system for food, shelter, clothing, energy, and other human uses is restored to the system in waste that can be reused – is a part of strategy for companies like Monsanto, interface, IKEA, Electrolux, Scandic Hotels, and MacMillan-Bloedel. Interface, the $ 1-billion leader in the floor covering industry, is instituting changes that will allow the company to manufacture without pollution, waste, or fossil fuels. CEO Ray Anderson is so committed to the concept of environment sustainability that he had the following lowing credo set in bronze at his never factory, 'if we are successful, then we will spend the rest of our days harvesting yesteryear's carpet and other petrochemicals derived products, recycling them into new materials, converting sunlight into energy – with zero scrap going into the landfill and zero emissions going into the ecosystem. And we'll be doing well – very well – by doing well.

Another growing pressure on organization is related to the rapidly changing global market, Companies operating globally face difficult ethical issues. Thousands of U.S. workers have lost jobs or earning power because companies can get the same work done overseas for lower costs. For example, Yakima Porducts, located in Arcata, California, transferred all production of its cartop carrying systems for bikes, skis and other sporting gear to Mexico. Although the decision was financially sound and clearly served the interests of share holders, employees and the local community felt angry and betrayed. Levi Strauss contracted for low – cost labor in Burma and China but, later felt ethically compelled to pull out of those contracts because of human rights violations in those countries. As the business world becomes increasingly global, issues of ethics and social responsibility will likely become even more difficult.

INNOVATE OR PERISH; THE STRATEGIC ROLE OF CHANGE

If there is one theme or lesson that emerges from previous lectures, it is that organizations must run fast to keep up with changes taking place all around them. Organizations must modify themselves not just from time to time, but all of the manufacturing firms need to reach out for new computer- integrated manufacturing technology and service firms for new information technology. Today's organizations must poise themselves to innovate and change, not only to prosper but merely to survive in a world of increased competition. Organizations that invest most of their time and resources in maintaining the status quo cannot hop to proper in today's world of constant change and uncertainty. Number of environmental forces drives this need for major organizational change. Powerful forces associated with advancing technology, international economic integration, the maturing of domestic markets, and the shift to capitalism in formerly communist regions have brought about a globalize economy that impacts every business, from the largest to the smallest, creating more threats as well as more opportunities, to recognize and manage the threats and take advantage of the opportunities, today's companies are undergoing dramatic changes in all areas of their operation.

As we saw, many organizations are responding to global forces by adopting self-directed teams and horizontal structures that enhance communication and collaboration, streamlining supply and distribution channels, and overcoming barriers of time and place through e- commerce. Other becomes involved in joint ventures or consortia to exploit opportunities and extend operations or markets internationally. Some organizations adopt structural innovations such as the network to focus on their core competencies while outside specialists handle other activities. New software programs for information sharing, knowledge management, and enterprise resources planning facilitate the network and help today's businesses keep pace with the rapid changes going on both within and outside the organization. In addition, today's organizations face a need for dramatic strategic cultural change and for rapid and continuous innovations in technology, services, products, and processes.

Change, rather than stability, is the norm today, whereas change once occurred incrementally and infrequently, today, it is dramatic and constant. A key element of the success of companies such as 3M Corporation, described in the opening case, Starbucks Coffee, and PepsiCo has been their passion for creating change, former Pepsi CEO Wayne Calloway insisted that the worst rule of management is, "if it ain't broke, don't fix it," Calloway preached that in today's economy, "if it ain't broke, you might as well break if yourself, because it soon will be,"

TYPES OF CHANGE

STRATEGIC TYPES OF CHANGE
Managers can focus on four types of change within organizations to achieve strategic advantage; these four types of changes are summarized in examples: products and services, strategy and structure, culture, and technology. These factors provide an overall context within which the four types of change serve as a competitive wedge to achieve an advantage in the international environment. Each company has a unique configuration of products and services, strategy and structure, culture, and technologies that can be focused fro maximum impact upon the company's chosen markets.

Technology changes are changes in an organization's production process, including its knowledge and skill base, that enable distinctive competence. These changes are deigned to make production more efficient or to produce greater volume. Changes in technology involve the techniques for making products or services. They include work methods, equipment, and work flow. For example, in university, technology changes are changes in techniques for teaching courses. As another example, the British water and sewage company Anglian Water came up with an innovative way to use its existing technologies to devise a water efficiency recycling system called Water wise, which allows households to use one – third less water. Anglian also adopted new information and knowledge – sharing technology for disseminating technical knowledge throughout the organization.

Product and Service changes pertain to the product or service outputs of an organization. New products include small adaptations of existing products or entirely new product lines. New products are normally designed to increase the market share or to develop new markets, customers, or clients. When faced with intense foreign competition in the machine – tool business, Cincinnatian Milacron transformed itself into a full – service industrial supplier, providing not only tools but all industrial plastics, fluids, and chemical, today, machine tools make up only about one –fourth of Milacron's total revenue base. The new products and services expanded the company's market and customer base, helping the 115 – year – old organization survive while many of its counterparts in the machine – tool industry failed.

Strategy and Structure changes pertain to the administrative domain in an organization. The administrative domain involves the supervision and management of the organization. These changes include changes in organization structure strategic management, policies, reward systems, labor relations, coordination devices, management information and control system, and accounting and budgeting systems. Structure and system changes are usually top – down, that is, mandated by top management, whereas product and technology changes may often come from the bottom up. The structure was changed at Cincinnati Milacron when top executives formed "Wolfpack" teams, groups of engineers, managers, outside suppliers, and customers who work together to develop new products. A system change instituted by management in a university might be a new merit pay plan. Corporate downsizing is another example of top – down structure change.

Culture changes refer to changes in the values attitudes, expectations, beliefs, abilities, and behavior of employees. Culture changes pertain to changes in how employees think; theses are changes in mindset rather than technology, structure, or products. At global Metallurgic, the old culture was marked by suspicion and distrust. Managers often dictated change without consulting workers and sometimes shifted their approaches and policies abruptly. One of the results of Globe's transformation is a new culture that values employee empowerment and involvement, a new respect for management, and a new commitment to quality.

The four types of changes are interdependent - a change in one often means a change in another. A new product may require changes in the production technology, or a change in structure may require new employee skills. For example, when Shenandoah Life Insurance Company acquired new computer technology to process claims, the technology was not fully utilized until clerk were restructured into teams of five to seven members that were compatible with the technology change. In a manufacturing company engineers introduced robots and advanced manufacturing technologies, only to find that the technology placed greater demands on employee. Upgrading employee skills required a change in wage systems. Organizations are interdependent systems, and changing one part often has implications for other organization elements.

TOTAL QUALITY MANAGEMENT

The approach known as total quality management infuses quality values throughout every activity within a company. The concept is simple; workers, not managers, are handed the responsibility for achieving standards of quality. No longer are quality control departments and other formal control systems in charge of checking parts and improving quality. Companies train their workers and then trust them to infuse quality into everything they do. The results of TQM programs can be staggering. After noticing that Ford Motor Company cut $ 40 billion out of its operating budget by adopting quality principles and changing corporate culture, the Henry Ford Health System also instituted a quality program. CEO Gail Warden says of quality programs at Henry Ford and other U.S health –care institutions, " we have to change the way we practice medicine" to get health –care costs down and remain competitive in the rapidly changing health – care industry.

By requiring organization wide participate in quality control, TQM requires a major shift in mind –set for both managers and workers, in TQM workers must be trained involved, and empowered in a way that many managers at first find frightening. One way in which workers are involved is through quality circles, groups of six to twelve volunteer workers who meet to analyze and solve problems.

Another technique of total quality management is known as benchmarking, a process whereby companies find out how others do something better than they do and then try to imitate or improve on it. Through research and fields trips by small teams of workers, companies compare their products services, and business practices with those of their competitors and other companies. AT&T, Xerox, DuPont, Kodak, and Motorola are constantly benchmarking.

While the focus of total quality programs is generally on improving quality and productivity, it always involves a significant culture change. Managers should be prepared for this aspect before undertaking quality programs.

THE LEARNING ORGANIZATION

A recent trend is to reduce barriers both within and between organizations and create companies that are focused on knowledge sharing and continuous learning. One of the key challenges for companies that are shifting to learning organization is creating an adaptive, learning culture, one method for bringing about this level of culture change is known as organization development, which focuses on the human and social aspects of the organization as a way to improve the organization's ability to adapt and solve problems. Organization development (OD) emphasizes the values of human development, Fairless, openness, freedom from coercions, and individual autonomy that allows workers to perform the job as they see fit, within reasonable organizational constraints. In the 1970s, OD evolved a separate field that applied the behavioral sciences in a process of planned organization wide change, with the goal of increasing organizational effectiveness, today, the concept has been enlarged to examine how people and groups can change to a learning organization culture in a complex and turbulent environment. Organization development is not a step-by-step procedure to solve a specific problems but a process of fundamental change in the human and social systems of the organization, including organizational culture.

OD uses knowledge and techniques from the behavioral sciences to create a learning environment through increased trust, open confrontation of problems, employee empowerment and participation, knowledge and information sharing, the design of meaningful work, cooperation and collaboration between groups, and the full use of human potential.

OD practitioners believe the best performance occurs by breaking down hierarchical and authoritarian approaches to management. It terms of the competing values effectiveness model, OD places high values on internal processes and human relationships, However, consistent with the arguments in the environment and technology, research has shown that the OD approach may not enhance performance or satisfaction in stable business environments and for routine tasks. It is best for organization that are facing environmental and technological discontinuities and rapid change and that need to become learning organizations. The U.S. Department of Agricultures' Animal and Plant Health Inspection Service has used organization development to overcome the problems of bureaucracy and create a culture that supports learning and change.

Shifting organizations toward a learning culture is not easy, but organization development techniques can smooth the process, for example, OD can help managers and employees think in new ways about human relationships, making the transition to more participative management less stressful. At Hewlett – Packard's direct marking organization, self –confessed " authoritarian" manager Sharon Jacobs used concepts based in organization development to create a better quality of life and participation for employees as well as improve the organization's performance, Spurred by pleas from new staffers who felt constricted by the excessive top – down control, Jacobs

is doing her best to let go, to ask her telemarketers for solutions, to listen to the ideas of even lowest – level staff members. Despite the difficulties in the beginning, the new style has resulted in a 40 percent increase in productivity, a rise in employee moral significant enough to warrant a note from HP's president, and a 44 percent decline in the unit's annual attrition rate.

OD CULTURE CHANGE INTERVENTIONS

OD interventions involve training of specific groups or of everyone in his organization. For OD intervention to be successful, senior management in the organization must see the need for OD and provide enthusiastic support for the change. Techniques used by many organizations for improving people skills through OD include the following.

Large Group Intervention: Most early OD activities involved small groups and focused on incremental change. However, in recent years, there has been growing interest in the application of OD techniques to large group settings, which are more attuned to brining about radical or transformational change in organizations operating in complex environments. The large group intervention approach, brings together participants from all parts of the organization – often including key stakeholders from outside the organization as well -- in an off – site setting to discuss problems or opportunities and plan for change. A large – group intervention might involve fifty to five hundred people and last for several days. The off- site setting limits interference and distractions, enabling participants to focus on new ways of doing things. General Electric's "work Out" program, an ongoing process of solving problems, learning, and improving, began with large – scale off – site meetings that grew out of Jack Welch's desire to create a " Culture of boundarylessness" he felt was critical to learning and growth. Hourly and salaried workers from any different parts of the organization join with customers and suppliers to discuss and solve problems.

Team Building: Team building promotes the idea that people who work together can work as a team. A work team can be brought together to discuss conflicts, goals, the decision – making process, communication, creativity, and leadership. The team can then plan to overcome problems and improve results. Team building activities are also used in many companies to train task forces, committees, and new product development groups. These activities enhance communication and collaboration and strengthen the cohesiveness of organizational groups and teams.

Interdepartmental Activities, Representative from different departments are brought together in a mutual location to surface conflict, diagnose its causes, and plan improvement in communication and coordination. This type of intervention has been applied to union – management conflict, headquarters – field office conflict, interdepartmental conflict, and mergers.

In today's world, the work force is becoming more and more diverse, and organizations are constantly adapting to environmental uncertainty and increasing international competition. OD interventions can respond to these new realties as organizations strive to create grater capability for leaning and growth.

STRATEGIES FOR IMPLEMENTING CHANGE

The four types of changes managers can use to gain a competitive edge, and the five elements that must be present for any change to succeed – idea, need, adoption, implementation, and resources, in this final section, we are going to briefly discuss the need for strong lead ship to support change, resistance to change at the organizational level, and some techniques managers can use to implement change.

INNOVATIOAN AND CHANGE

Regardless of the type or scope of change, there are identifiable stages of innovation, which generally occur as a sequence of events, though innovation stages may overlap. In the research literature on innovation, organizational change is considered the adoption of a new idea or behavior by an organization. Organizational innovation, in contrast, is the adoption of an idea or behavior that is new to the organization's industry, market, or general environment. The first organization to introduce a new product is considered the innovator, and organizations that copy are considered to adopt changes. For purposes of managing change, however, the terms innovation and change will be used interchangeably because the change process within organizations tends to be identical whether a change is early or late with respect to other organizations in the environment.

Innovations typical are assimilated into an organization through a series of steps or elements. Organizations member first become aware of a possible innovation, evaluate its appropriateness, and then evaluate and choose the idea. The required elements of successful change for a change to be successfully implemented; managers must make sure each element occurs in the organization. If one of the elements is missing, the change process will fail.

1. Ideas. Although creativity is a dramatic element of organizational change, creativity within organizations has not been widely and systematically studied. No company can remain competitive without new ideas; change is the outward expression of those ideas. An idea is a new way of doing things. It may be a new product or service, a new management concept, or a new procedure for working together in the organization ideas can come from within or from outside the organization.

2. Need, ideas are generally not seriously considered unless there is perceived need for change. A perceived need for change occurs when a manger see a gap between actual performance and desired performance in the organization. Managers try to establish a sense of urgency so that others will understand the need for change. Sometimes a crisis provides an undoubted sense of urgency. For example, Midwest Contract Furnishings, a small firm that designs and fabricates hotel interiors, faced a crisis when its largest customer, Renaissance Hotels, was sold to Marriott, which did interior designing in – house. Midwest lost 80 percent of its revenues virtually overnight. In many cases, however, there is no crisis, so managers have to recognize a need and communicate it to others. In addition, although many ideas are generated to meet perceived needs, innovative companies encourage the constant development of new ideas that may stimulate consideration of problems or new opportunities.

3. Adoption, Adoption occurs when decision makers choose to go ahead with a proposed idea. Key managers and employees need to be in agreement to support the change. For a major organizational change, the decision might require the signing of a legal document by the board of directors. For a small change, adoption might occur with informal approval by a middle manager. When RAY Kroc was CEO of McDonald's, he made the adoption decision about innovations such as the Big Mac and Egg McMuffin.

4. Implementation. Implementation occurs when organization members actually use a new idea, techniques, or behavior, Materials and equipment may have to be acquired, and workers may have to be trained to use the new idea, implantation is a very important step because without it, previous steps are to no avail, implementation of change is often the most difficult part of the change process. Until people use the new idea, no change has actually taken place.

5. Resources. Human energy and activity are required to bring about change. Change does not happen on its own; it requires time and resources, for both creating and implementing a new idea. Employees have to provide energy to see both the need and the idea to meet that need. Someone must develop a proposal and provide the time and effort to implement it.

Needs and ideas are listed simultaneously at the beginning of the change sequence. Either may occur first. Many organizations adopted the computer, for example, because it seemed a promising way to improve efficiency. Today's search for a vaccine against the AIDS virus, on the other hand, was stimulated by a severe need. Whether the need or the idea occur first, for the change to be accomplished. At the New York law firm of Cadwalader, Wicker sham, and Taft, the change process was triggered by a compelling need; improve service and profits or fail.

TECHOLGOY CHANGE
In today's business world, any company that isn't constantly developing, acquiring, or adapting new technology will likely be out of business in a few years. However, organization faces a contradiction when it comes to technology

change, for the conditions that promote new ideas are not generally the best for implementing those ideas for routine production. An innovative organization is characterized by flexibility, empowered employees and the absence of rigid work rules. An organic, free flowing organization is typically associated with change and is considered the best organization form for adapting to a chaotic environment.

The flexibility of an organic organization is attributed to people's freedom to crate and introduce new ideas. Organic organization encourages a bottom – up innovation process. Ideas bubble up from middle - and lower – level employees because they have the freedom to propose ides and to experiment. A mechanistic structure, on the other hand, stifles innovation with its emphasis on rules and regulations, but it is often the best structure for efficiently producing routine product, the challenge for organizations is to create both organic and mechanistic condition within organizations to achieve both innovation and efficiency. To achieve both aspects of technological change, many organizations use the ambidextrous approach.

THE AMBIDEXTROUS APPROACH

Recent thinking has refined the ideas of organic versus mechanistic structures with respect to innovation creation versus innovation utilization. For example, sometimes an organic structure generates innovation ideas but is not the best structure for using those ideas. In other words, the initiation and the utilization of change are two distinct processes. Organic characteristics such as decentralization and employees freedom are excellent for initiating ideas; but these same conditions often make it hard to use a change because employees are less likely to comply. Employees can ignore the innovation because of decentralizations and a generally losses structure.

How does an organization solve this dilemma? One approach is for the organization to be ambidextrous – to incorporate structure and management processes that are appropriate to both the creation and use of innovation. The organization can behave in an organic way when the situation calls for the initiation of new ideas and in a mechanistic way to implement and use the ideas.

An example of the ambidextrous approach is the Freedenberg NOK auto parts factory in Ligonier, Indian. Shifting teams of twelve, including plant workers, managers, and outsiders, each spend three days crating ideas to cut costs and boost productivity in various sections of the plant. At the end of the three days, team members go back to their regular jobs, and a new team comes in to look for even more improvement, over a year's time, there are approximately forty of these GRWOTH (get Rid of Waste Through Team Harmony) teams roaming through the sprawling factory. management has promised that no one will be laid off as a result of suggestions from GROWTH teams, which further encourages employees to both creates and use innovations.

TECHNIQUES FOR ENCOURAGING – TECHNOLOGY CHANGE

Freedenberg – NOK has created both organic and mechanistic conditions in the factory. Some of the techniques used by many companies to maintain an ambidextrous approach are switching structures, separate creative department, venture teams, and corporate entrepreneurship.

Switching Structures: Switching structures mean an organization creates an organic structure when such as structure is needed for the initiation of new ideas. Some of the ways organizations have switched structures to achieve the ambidextrous approach are as follow.

- Phillips Corporation, a building materials producer based in Ohio, each year creates up to 150 transient team – made up of members from various departments—to develop ideas for improving Philips products. After five day of organic brainstorming and problem solving, the company reverts to a more mechanistic basis to implement the changes.

- Gardetto's a family – run snack – food business, sends small teams of workers to Eureka Ranch, where they may engage in a Nerf gun battle to set the tone for fun and freedom, then participate in brainstorming exercises with the idea of generating a s many new ides as possible by the end of the day. Doug Hall, who runs Eureka Ranch, uses cans of baked beans, bags of cookies, and competitors' snack foods to stimulate ideas. After two and a half days, the group returns to the regular organizational structure to put the best of the ideas into action.

- Xerox Corporation's Palo Alto Research Center (PARC) is purposely isolated from the corporation's bureaucracy and is staffed with mavericks not afraid to break the rules, John Seely Brown, Xerox's director of research, encourages his researchers to make trouble and upset conventional thinking. Xerox, which counts on the free thinkers at PARC for new insights, new solutions, and sometimes even entirely new businesses, knows that it is easy for maverick ides to get trampled in the traditional organization.

- The NUMMI plant, a Toyota subsidiary located in Fremont, California, creates a separate, organically organized cross- functional subunit, called the Pilot. Team to design production processes for new car and truck models. When the model they are preparing moves into production, workers return to their regular jobs on the shop floor.

Each of these organizations found creative ways to be ambidextrous, establishing organic conditions for developing new ideas in the midst of more mechanistic conditions for implementing and using those ideas.

Creative Departments: In many large organizations the initiation of innovations is assigned to separate creative departments. Staff departments such as research and development, engineering, design, and systems analysis; create changes for adoption in other departments. Departments that imitate change are organically structured to facilitate the generation of new ideas and techniques. Departments that use those innovations tend to have a mechanistic structure more suitable for efficient production. Example indicates how one department is responsible for creation and another department implements the innovation.

Raytheon's New Products Center, in operation for thirty years, illustrates how creativity and entrepreneurial spirit can coexist with discipline and controls. The center has been responsible for many technical innovations, including industry leading combination ovens, which added microwave capabilities to conventional stoves. The New Products Center Provides autonomy and freedom for staff to explore new ideas, yet staff must also establish a working relationship with other departments so that innovations meet a genuine need for Raytheon departments.

Venture Teams: Venture teams are a recent technique used to give free rein to creativity within organizations. Venture teams are often given a separate locations and facilities so they are not constrained by organizational procedures. Dow Chemical created an innovation department that has virtually total license to establish new venture projects for any department in the company. Data Card Corp, which makes products that are critical to the creation of bank card, ID cards, and smart cards, provides teams with the autonomy and resources to develop start – up business plans, which are then presented to the board of directors for venture funding. At 3M, described in the opening case, venture teams are referred to as action teams, an employee with a promising new product idea is allowed to recruit team members from throughout the company. These people may end up running the newly created division if the idea is successful. Action teams and ventures teams are kept small so they have autonomy and no bureaucracy emerges.

A venture team is like a small company within a large company. Monsanto, Levi Strauss, and Exxon have all used the venture team concept to free creative people from the bureaucracy of large corporation. Most large companies that have successfully crated e- commerce divisions have set them up like venture firms so they have the freedom to explore and develop emerging technologies. For example, Provident American Life & Health CEO Al Clements set up a separate online company called Health – Axis.com.., which became the Web's first full service insurance agency. The venture was so successful that Provident American eventually shed its bricks – and – mortar operations and moved its entire business into cyberspaces. Large, established organizations have difficult unless they create autonomous units that can focus time and resources on the new technology.

A variation of the venture team concept is the new – venture fund, which provides financial resources for employees to develop new ideas, products, or businesses, in order to tap into its employee's entrepreneurial urges, Lockheed Martin allows workers to take up to two years' unpaid leave to explore a new idea, using company labs and equipment paying company rates for health insurance. If the idea is successful, the corporation's venture fund invests around $ 250,000 in the start – up company. One successful star t – up is Genase, which created an enzyme that "Stonewashes" denim.

Corporate Entrepreneurship: Corporate entrepreneurship attempts develop an internal entrepreneurial spirit, philosophy, and structure that will produce a higher than average number of innovations. Corporate entrepreneurship may involve the use of creative department and new venture teams as described above, but it also attempt to release the creative energy of all employees in the organization. The most important outcome is to facilitate idea champions which go by a variety of names, including advocate, entrepreneur, or change agent. Idea champions provide the time and energy to make things happen. They fight to overcome natural resistance to change and to convince others of the merit of a new idea. Peter Drucker suggests that idea champion need not be within the organization, and that fostering potential idea champions among regular customers can be highly successful approach. At ANGLIAN water, every innovation project has a sponsor or champion who is a customer seeking a solution to a specific problem. The importance of the idea champion is illustrated by a fascinating fact discovered by Texas Instruments; when TI reviewed fifty successful and unsuccessful technical projects, it discovered that every failure was characterized by absence of a volunteer champion. There was no one who passionately believed in the ideas, who pushed the idea through all the necessary obstacles to make it work. Texas instruments took this finding so seriously that now its number one criterion for approving new technical projects is the presence of a zealous champion.

Companies encourage idea champions by providing freedom and slack time to creative people; IBM and General Electric allow employees to develop new technologies without company approval. Known as bootlegging, the unauthorized research often pays big dividends. As one IBM executive said, "we wink at it. It pays off; it's just amazing what a handful of dedicated people can do when they are really turned on."

Idea champions usually come in two types. The technical or product champion is the person who generators or adopts and develops an idea for a.

REASONS FOR NEW PRODUCT SUCCESS

The next question to be answered by research was, "why are some products more successful than others?" why did a product such as Frappuccino succeed in the marketplace. While those such as Miller Clear Beer an Frito – Lay's lemonade failed? Further studies indicated that innovation success was related to collaboration between technical and marketing departments. Successful new products and services seemed to be technologically sound and also carefully tailored to customer needs. A study called Project SAPPHO examined seventeen pairs of new product innovations, with one success and one failure in each pair, and concluded the following

1.   Successful innovating companies had a much better understanding of customer needs and paid much more attention to marketing.
2.   Successful innovating companies made more effective use of outside technology and outside advice, even though they did more work in – house.
3.   Top management support in the successful innovating companies was from people who were more senior and had greater authority.

Thus, there is a distinct pattern of tailoring innovations to customer needs, marketing effective use of technology, and having influential top managers support the project, these ideas taken together indicate that the effective design for new product innovation is associated with horizontal linkage across departments.

HORIZONTAL LINKAGES MODEL
The organization design for achieving new product innovation involves three components --- departmental specialization, boundary spanning, and horizontal linkages.

Specialization: The key departments in new product development are R & D. marketing and production. The specialization component means that the personnel in all three of these departments are highly competent at their own tasks. The three departments are differentiated from each other and have skills, goals and attitudes appropriate for their specialized functions.

Boundary Spanning: This component means each department involved with new products has excellent linkage with relevant sectors in the external environment. R & D personal are linked to professional associations and to colleagues in other R & D departments. They are aware of recent scientific developments. Marketing personnel are closely linked to customer needs. They listen to what customers have to say, and they analyze competitor products and suggestions by distributors. For example, Kimberly – Clark had amazing success with Huggies Pull- Ups because marketing researchers worked closely with customers in their own homes and recognized the emotional appeal of pull – on diapers for toddlers. By the time competitors caught on, Kimberly – Clark was selling $ 400 million worth of Huggies annually.

Horizontal Linkages: This component means that technical, marketing, an production people share ideas and information, research people information marketing of new technical developments, to learn whether the development are applicable to customers. Marketing people provide customer complaints and information to R & D to use in the design of new products. People from both R & D and marketing coordinate with production because new products have to fit within production capabilities so costs are not exorbitant. The decision to launch a new product is ultimately a joint decision among all three departments.

At General Electric, Members of the R & D department have a greater deal of freedom to imagine and invent, and then they have to shop their ideas around other departments, and division, sometimes finding applications for new technologies that are far from their original intentions. As a result, one study shows that of 250 technology products GE undertook to develop over a four – year period, 150 of them produced major applications, far above the U.S. average. IBM's market researchers worked side by side with designers, engineers, and manufacturing personnel, as well as representatives from procurement, logistics, and other department's to produce IBM's hot – selling Think Pad laptop computer. Famous innovation failures – such as McDonald's Arch Deluxe, the apple Newton, RJR Nabisco's Premier smokeless cigarettes, and Gerber's Singles, a line of meals for adults – usually violate the horizontal linkage model. Employees fail to connect with customer needs, or internal department fail to adequately share needs and coordinate with one another.

Companies are increasingly using cross – functional teams for product development to ensure a high level of communication and coordination from the beginning. The functional diversity increases both the amount and the variety of information for new product development, enabling the design of products that meet customer needs and

circumventing manufacturing and marketing problems; Kellogg has revised its approach to new product development to improve horizontal collaboration.

Companies such as Kellogg, IBM, and General Electric are using the horizontal linkage model to achieve competitive advantage in today's global marketplace.

ACHIEVING COMPETITIVE ADVANTAGE WITH RAPID PRODUCT INNOVATION

For many companies, creating new products is critical way to adapt and survive in a rapidly changing environment. Getting new products to market fast and developing products that can compete in a competitive international market are key issues for companies like Xerox, 3M, and Levi Strauss. One authority on time – based competition has said that the old paradigm for success – "provide the most value for the least cost" --- has been updated to "provide the most value for the least cost in the least elapsed time.

To gain business, companies are learning to develop new products and services incredibly fast. Whether the approach is called the horizontal linkage model, concurrent engineering, companies without walls, the parallel approach, or simultaneous coupling of departments, the point is the same – get people working together simultaneously on a project rather than in sequence. Many companies are learning to sprint to market with new products.

Hewlett- Packard has made speed a top priority, getting products out the door twice as fast and using as fast ad urging employees to rethink every process in terms of speed. A printer that once took fifty – four months to develop is now on the market in twenty – two, speed is becoming a major competitive issue and requires the use of cross- functional teams and other horizontal linkages.

Another critical issue is designing products that can compete on global scale and successfully marketing those products internationally. Companies such as Quaker Oats, Hagen Dazs, and Levi's are trying to improve horizontals communication and collaboration across geographical regions, recognizing that they can pick up wining product ideas from customers in other countries. A new Haagen Dazs flavor, dulce de leche, developed primarily for sale in Argentina, has quickly become a favorite in the United States, with sales growing by about 27 percent monthly. Ford has boosted its global competitiveness by using its intranet and global teleconferencing to link car design teams around the world into single unified groups. Black & Decker has also been redesigning its product development process to become a stronger international player, to make global product development faster and more effective, new products are developed by cross – functional project delivery teams, which are answerable to a global business unit team.

Failing to pay attention to global horizontal linkages can hurt companies trying to compete internationally. The Dutch giant Philips Electronics NV was certain its compact disk interactive player called. The imagination Machine would be a hit in the Crucial U.S market, and ultimately; the rest of the world. Five years later, the product, which was promoted as an interactive teaching aid and was to complex it required a thirty – minute's sales demonstration, had all but disappeared from the shelves. Marketing employees, sales people, and major customers had crucial information that would have helped Philips understand the U.S market, but by the time the executives gathered the information and tried to change course, it was too late," we world isn't as easy as it seems," when companies enter the arena of intense international competition, horizontal coordination across countries is essential to new product development.

STRATEGY AND STRUCTURE CHANGE

The preceding discussion focused on new production processes and products, which are based in the technology of an organization. The expertise for such innovation lies within the technical core and professional staff groups, such as research and engineering. This section turns to an examination of structural and strategy changes.

All organization needs to make changes in their strategies and structure from time to time. In the past, when the environment was relatively stable, most organizations focused on small, incremental changes to solve immediate problems or take advantage of new opportunities, however, over the past decade, companies throughout the world have faced the need to make radical changes in strategy, structure, and management processes to adapt to new competitive demands. Many organizations are cutting out layers of management and decentralizing decision making. There is a strong shift toward more horizontal structures, with teams of front – line workers empowered to make decision and solve problem on their own. Some companies are breaking totally away from traditional organization forms and shifting toward network strategies and structures, others are moving their entire business into cyberspace. Numerous companies are reorganizing and shifting their strategies as the expansion of e- commerce

changes the rules, for example, online banking, credit cards, and ATMs are affecting the role of branch banks. Global competition and rapid technological change will likely lead to even greater strategy – structure realignments over the next decade.

These types of changes are the responsibility of the organization's top managers, and the overall process of change is typically different from the process for innovation in technology or new product.

THE DUAL – CORE APPROACH
The dual – core approach compares administrative and technical changes, administrative changes pertain to the design and structure of the organization itself, including restructuring, downsizing, teams control systems, information system's and departmental grouping. Research into administrative change suggests two things, first, administrative changes occur less frequently than do technological changes, second, administrative changes occur in response to different environmental sectors and follow a different internal process than do technology based changes. The dual – core approach to organization change identifies the unique processes associated with administrative change.

Organizations – schools, hospitals, city government, welfare agencies, government bureaucracies, and many business firms – can be conceptualized as having two cores; a technical core and an administrative core. Each core has its own employees, tasks, and environmental domain. Innovation can originate in either core.

The administrative core is above the technical core in the hierarchy. The responsibility of the administrative core includes the structure, control, and co-ordination of the organization itself and concerns the environmental sectors of government, financial resources, economic conditions, human resources, and competitor, the technical core is concerned with the transformation of raw materials into organizational products and services and involves the environmental sectors of customers and technology.

The findings from research comparing administrative and technical change suggest that a mechanistic organization structures is appropriate for frequent administrative changes, including changes in goals, strategy, structure, control systems, and personnel. For example, administrative changes in policy, regulations, or control systems are more critical than technical changes in much government organization that are bureaucratically structure. Organizations that successfully adopt many administrative changes often have a larger administrative ratio, are larger in size, and are centralized and formalized compared with organizations that adopt May technical changes. The reason is the top – down implementation of changes in response to changes in the government, financial, or legal sectors of the environment. In contrast, if an organization has an organic structure, lower – level employees have more freedom and autonomy and, hence, may resist top – down initiatives. An organic structure is more often used when changes in organizational technology or products are important to the organization.

The innovation approaches associated with administrative versus technical change are summarized. Technical change, such as changes in production techniques and innovation technology for new products, is facilitated by an organic structure, which allows ides to bubble upward from lower – and middle level employees. Organization that must adopt frequent administrative changes tend to use a top – down process and a mechanistic structure, for example, policy changes, such as the adoption of tough no – smoking policies by companies like Park Nicollet Medical Center in Minnesota, are facilitated by a top – down approach. Downsizing and restructuring are nearly always managed top down, such as when Raymond Lane, president of Oracle Corporation split the sales force into two teams (one focused on selling database software and the other on selling applications) , cut out two levels of management, and placed himself directly in charge of U.S. sales.

The point of the dual – core approach is that many organizations especially not – for – profit and government organization – must adopt frequent administrative changes, so a mechanistic structure may be appropriate. For example research into civil service reform found that the implementation of administrative innovation was extremely difficult in organizations that had an organic technical core. The professional employees in a decentralized agency could resist civil service changes, By contrast, organization that were consider more bureaucratic in the sense of high formalization and centralization adopted administrative change readily.

What about business organizations that are normally technologically innovative in bottom – up fashion but suddenly face a crisis and need to reorganize? Or consider a technically innovative high – tech firm that must reorganize frequently or must suddenly cut back to accommodate changes in production technology or the environment. Technically innovative firms may suddenly have to restructure, reduce the number of employees, alter pay systems, disband teams, or form a new division. The answer is to use a top – down change process. The

authority of strategy and structure change lies with top management, who should initiate and implement the new strategy and structure to meet environmental circumstances, employee input may be sought, but top managers have the responsibility to direct the change. Downsizing, restructuring, and reorganizing are common terms for what happens in times of rapid change and global competition, often, strong top – down changes follow the installation of new top management, for example, when Carol Bartz first arrived at Autodesk, Inc.., a leading software company, she introduced a first for the company; a management hierarchy. Autodesk had always been an organic organization, but Bartz believed a more mechanistic approach was needed to revive profits and get the struggling company back on track. She recognized that a top – down change process was needed to develop new goals and strategies and firmly direct there structuring needed to help Autodesk survive. Changes such as restructuring and downsizing can often be painful for employees, so top managers should move quickly and authoritatively to make both as humane as possible.

Top managers should also remember that top –down change means initiation of the idea occurs at upper levels and is implemented downward. It does not mean that lower – level employees are not educated about the change or allowed to participate in it, Dan Caulfield, founder of Hire Quality Inc.., learned the hard way that there are right ways and wrong ways to manage top – down administrative change.

CULTURE CHANGE

Organization are made up of people and their relationships with one another, Changes in strategy, structure technologies, and products do not happen on their own, and changes in any of these areas involve changes in people as well. Employees must learn how to use new technologies, or market new products, or work effectively in a team – based structure.

In a world where any organization can purchase new technology, the motivation, skill, and commitment of employees can provide the competitive edge, Human Resources systems can be designed to attract, develop, and maintain an efficient force of employees.

Sometimes achieving a new way of thinking requires a focused change on the underlying corporate culture values and norms. In the last decade, numerous large corporations, including 'Kodak, IBM, and Ford Motor Company, have undertaken some type of culture change initiative. Changing corporate culture fundamentally shifts how work is done in an organization and generally leads to renewed commitment and empowerment of employees and a stronger bond between the company and its customers.

Some recent trends that generally lead to significant changes in corporate culture are reengineering, the shift to horizontal forms of organizing, and the implementation of total quality management programs, all of which require employees to think in new ways about how work is done.

Organizational development programs also focus on changing old culture values to new ways of thinking, including a learning orientations, greater employees participation and empowerment, and developing a shared companywide vision.

REENGINEERING AND HORIZONTAL ORGANIZATION

Reengineering is a cross – functional initiative involving the radical redesign of business processes to bring about simultaneous changes in culture, structure, and information technology and produce dramatic performance improvements in areas such as customer service, quality, cost and speed. Reengineering basically means taking a clean – slate approach, pushing aside all the notions of how work is done now and looking at how work can best be designed for optimal performance, the ideas is to squeeze out the dead space and time lags in work flows, such companies as Hoechst Celanese, Union Carbide, BellSouth Telecommunication's and Dupont are among the dozens of companies involved in major reengineering efforts. After reengineering, Union Carbide cut $ 400 million out of fixed costs in just three years; Hoechst Celanese identified $70 million in cost savings and productivity improvements over a two – year period, without making massive job cuts. Many more organizations have reengineered one or a few specific processes.

Because the focus is on process rather than functional, reengineering generally leads to a shift from a vertical organization structure to horizontal structures. This, in turn requires major changes in corporate culture and management philosophy. In his book the reengineering Revolution, Michael Hammer refers to people change as "the most perplexing, annoying, distressing, and confusing part" of reengineering. Managers may confront powerful emotions as employees react to rapid, massive change with fear or anger, Top leaders at Jaguar of North America

copied with resistance to reengineering by putting their loudest dissenters in change of solutions and then getting out of the way. They implemented employee suggestions that corrected so many of Jaguar's shortcomings that even the most skeptical dealers accepted that the company truly cared about its employees and its customers.

In the horizontal organization, managers and front –line workers need to understand and embrace the concepts of team work, empowerment, and cooperation. Everyone throughout the organization needs to share a common vision and goals so they have a frame work within which to make decisions and solve problems, managers shift their thinking to view workers as colleagues rather than cogs in a wheel; and workers learn to accept not only greater freedom and power, but also the higher level of responsibility --- and stress – that comes with it. Mutual trust, risk taking, and tolerance for mistakes become key cultural values in the horizontal organization. Most top managers have little experience dealing with the complexities of human behavior; yet, they should remember that culture changes are crucial to the success of reengineering and the shift to horizontal forms of organization.

STRATEGIES FOR IMPLEMENTING CHANGE

LEADERSHIP FOR CHANGE
As the world becomes increasingly complex, the need for change within organization and the need for leaders who can successfully manage change continues to grow, coping with rapid change is one of the greatest challenges facing today's organizations. Organizations need to continuously change and adapt in response to a turbulent environment. They need leaders who clearly recognize the need for change and make it happen, who can develop and communicate a vision for what the organizations can be and provide the motivation and guidance to take it there. Leaders who an effect the kind of continuous adaptation needed in today's world recognize that change is painful for employees , and they learn to put themselves in their employee's shoes and develop partnerships that make successful change possible.

Successful change can happen only when employees are willing to devote the time and energy needed to reach new goals as well as endure possible stress and hardship, Having a clearly communicated vision that embodies flexibility and openness to new ideas, methods, and styles sets the stag for a change – oriented organization and helps employees cope with the chaos and tension associated with change. Leaders also build organization wide commitment by taking employees through three stages of the change commitment process. In the first stage, preparation, employees hear about the change through memos, meetings, speeches, or personal contact and become aware that the change will directly affect their work. In the second stage, leaders should help employees develop an understanding of the full impact of the change and the positive, the decisions to implement is made. In the third stage, the true commitment process begins. The installation step, a trial process for the change, gives leaders an opportunity to discuss problems and employee concerns and build commitment to action. In the full stage, institutionalization, employees view the change not as something new but as a normal and integral part of organizational operations.

The pressures on organizations to change will likely increase over the next few decades and leaders must develop the personal qualities, skills, and methods needed to help their companies remain competitive. Indeed, some management experts argue that to survive the upheaval of the early twenty –first century, managers must turns their organizations into change leaders by using the present to actually create the future -- breaking industry rules, creating new market space, and routinely abandoning outmoded products, services, and processes to free up resources to build the future.

BARRIERS TO CHANGE
Visionary leadership is crucial for change; however, leaders should expect to encounter resistance as they attempt to take the organization through the three stages of the change commitment process. It is natural for people to resist change, and many barriers to change exist at the individual and organizational level.

1.   Excessive focus on costs. Management may possess the mind – set that costs are all – important and may fail to appreciate the importance of a change that is not focused on costs – for example, a change to increase employee motivation or customer satisfaction.
2.   Failure to perceive benefits. Any significant change will produce both positive and negative reactions. Education may be needed to help managers and employees perceive more positive than negative aspects of the change. In addition, if the organization's reward system discourages risk – taking, a change process may falter because employee thinks that risk of making the changer is too high.
3.   Lack of coordination and cooperation. Organizational fragmentation and conflict often result from the lack of coordination for change implementation, Moreover, in the case of new technology; the old and new systems must be compatible.
4.   Uncertainty avoidance. At the individual level, many employees fear the uncertainty associated with change. Constant communication is needed so that employees know what is going on and understand how it impacts their jobs.
5.   Fear of loss, Managers and employees may fear the loss of power and status or even their jobs. In these cases, implementation should be careful and incremental, and all employees should be involved as closely as possible in the change process.

Implementation can typically be designed to overcome many of the organizational and individual barriers to change.

TECHNIQUES FOR IMPLEMENTATION

Top leaders articulate the vision and set the tone, but managers and employees throughout the organization are involved in the process of change. There are a number of techniques that can be used to successfully implement change.

1.   Identify a true need for change. A careful diagnosis of the existing situation is necessary to determine the extent of the problem or opportunity, if the people affected by the change do not agree with a problem; the change process should not proceed without further analysis and communication among all employees. As mentioned early sometimes a sense of urgency is needed to unfreeze people and make them willing to invest the time and energy to adopt new techniques or procedures. For example, ALLTEL, an information services and telecommunications company , faced both productivity and customer service problems as the company coped with rapid growth in the mid 1990s but mangers found it difficult to convince employees of the need for change. When ALLTEL Technology Center's errors began to mount and the Center almost lost its largest client, GTE, managers used the incident to help establish a sense of urgency. Management and employees began meeting in small groups to talk about the need for change and how they could revise their work to improve the organization.

2.   Find an idea that fits the need, finding the right ideas often involves search procedures – taking with other mangers, assigning a task force to investigate the problem, sending out a request to suppliers, or asking creative people within the organization to develop a solution. The creation of a new idea requires organic conditions. This is a good opportunity to encourage employee participation, because they need the freedom to think about and explore new options. ALLTEL set up a program called Team Focus to gather input from all employees. In twenty groups meeting over a period of two weeks, managers gathered 2,800 suggestions, which they then narrowed down to 170 critical action items that specifically addressed problems that were affecting employee morale and performance.

3.   Get top management support, successful change requires the support of top management; top managers should articulate clear innovation goals. For a single large change, such as a structural reorganization, the president and vice presidents must give their blessing and support, for smaller changes, the support of influential manager in relevant departments is required. The lack of top management support is one of the most frequent causes of implementation failure.

4.   Design the change for incremental implantation. Sometimes large changes cannot be implanted all at once or employees may feel overwhelmed and resist the change, Recall how Dan Caulfield tried to force employees to shift to a paperless office system overnight but found that he needed to scale back and introduce the new system in more gradual manners. Likewise, when a large bank in South Carolina. Installed a complete new $ 6 million system to computerize processing, it was stunned that the system didn't work very well. The prospect for success of such a large change is improved if the change can be broken into subparts and each part adopted sequentially. Then designers can make adjustment to improve the innovation, and hesitant users who see success can throw support behind the rest of the change program.

5.   Develop plans to overcome resistance to change. Many good ideas are never used because managers failed to anticipate or prepare for resistance to change by consumers, employees, or other managers. No matter how impressive the performance characteristic of an innovation, its implementation will conflict with some interests and jeopardizes some alliances in the organization. To increase the chance of successful implantation, management must acknowledge the conflict, threats, and potential losses perceived by employees. Several strategies can be used by managers to overcome the resistance problem;

•   Alignment with needs and goals of users. The best strategy for overcoming resistance is to make sure change meets a real need. Employees in R&D often come up with great ideas that solve nonexistent problems. This happens because initiators fail to consult with the people who use a change. Resistance can be frustrating for managers, but moderate resistance to change is good for an organization. Resistance provides a barrier to frivolous changes or to change for the sake of change. The process of overcoming resistance to change normally requires that the change be good for its users.

•   Communication and training. Communications informs users about need for change and about the consequences of a proposed change, preventing false rumors, misunderstanding, and resentment. In one study of change efforts, the most commonly cited reason for failure was that employees learned of the change from outsiders. Top managers concentrated on communicating with the public and with shareholders, but failed to communicate with the people who would be most intimately involved and most affected by the changes – their own employees. Open communication often gives management an opportunity to explain what steps will be taken to

ensure that the change will have no adverse consequences for employees. Training is also needed to help employees understand and cope with their role in the change process.

- Participation and involvement, Early and extensive participation in a change should be part of implementation. Participation given those involved a sense of control over the change activity. They understand it better, and they become committed to successful implementation. One recent study of the implementation and adoption of computer technology at two companies showed a much smoother implementation, process at the company that introduced the new technology using a participatory approach. The team – building and large group intervention activities described earlier can be effective ways to involve employees in a change process.

- Forcing and Coercion. As a last resort, mangers may overcome resistance by threatening employees with loss of jobs or promotion or by firing or transferring them. In other words, management power is used to overwhelm resistance. In most cases, this approach is not advisable because it leaves people angry at change mangers, and the change may be sabotaged. However, this technique may be needed when speed is essential, such as when the organization faces a crisis. It may also be required for needed administrative changes that flow from the top down, such as downsizing the work force.

6.　Create change teams. Separate Creative Department, new venture groups, or an ad hoc team or task force are ways to focus energy on both creation and implementation. As separate department has the freedom to create a new technology that fits a genuine need. A task force can be created to see that implementation is completed. The task force can be responsible for communication, involvement of users, training, and other activities needed for change.

7.　Foster idea champions. One of the most effective weapons in the battle for change is the ideas champion. The most effective champion is a volunteer champion who is deeply committed to a new idea. The idea champion sees that all technical activities are correct and complete. An additional champion, such as manager sponsor, may also be needed to persuade people about implementation, even using coercion if necessary. For example, John Cunningham was the idea champion at Chesebrough- Ponds who developed the polishing pen through which nail polish is applied. Management supporters at Chesebrough –Ponds then solved the implementation problems of manufacturing, packaging, and marketing. Both technical and management champions may break the rules and push ahead even when others are non-believing, but the enthusiasm pays off.

INCREMENTAL VERSUS RADICAL CHANGE

The change used to adapt to the environment can be evaluated according to scope – that is, the extent to which changes are incremental or radical for the organization. Incremental change represent as series of continual progressions that maintain the organization's general equilibrium and often affect only one organizational part. Radical change, by contrast, breaks the frame of reference for the organization, often transforming the entire organization, frame of reference for the organization, often transforming the entire organization. For example, an incremental change is the implementation of sales team in the marketing department, whereas a radical change is shifting the entire organization from a vertical to a horizontal structure, with all employees who work on specific core processes brought together in teams rather than being separated into functional departments such as marketing, finance, production, and so forth. For the most part, incremental change occurs through the established structure and management processes, and it may include technology improvement – such as the introduction of computer integrated manufacturing – or product improvement, --- such as Procter & Gamble's addition to Tide detergent of cleaning agents that protect colors and fabrics. Radical change involves the creation of new structure and management processes. The technology is likely to be breakthrough, and new products thereby rated will establish new markets.

As we have just discussed, there is a growing emphasis on the need for radical change because of today's turbulent, unpredictable environment. Indeed, some experts argue that firms must be constantly changing their structures and management processes in response to changing their structures and management processes in response to changing demands, the health – care industry, for example, continues to face tremendous upheaval, and companies likely will have to implement radical change to survive. One example of radical change was the revolution at Motorola that achieved an astounding six sigma quality (only 3.4. mistakes per million parts produced). This level of quality, previously considered impossible, became the new norm. An example of radical change in s Service Company comes from the traditionally slow – moving insurance industry.

DECISION MAKING IN TODAY'S ENVIRONMENT

Seen a problem before and may not know to respond. Clear – cut decision criteria do not exist. Alternatives are fuzzy. There is uncertainty about whether a proposed solution will solve the problem. Typically, few alternatives can be developed for a non-programmed decision, so a single solution is custom – tailored to the problem.

Many non-programmed decisions involve strategic planning, because uncertainty is great and decisions are complex, for example, when he first began his job as CEO FO Continental Airlines, Gordon M. Bethune decided to ground forty – one planes, cut more than 4,200 jobs, and abolish cut –rate fares as part of his strategy to make the ailing airline profitable again. Bethune and other top managers had to analyze complex problems, evaluate alternatives, and make a choice about how to pull Continental out of its Slump. These and other decisions have proved to be right on target, as Continental has enjoyed renewed profitability and a vastly improved service record.

Particularly complex non- programmed decisions have been referred to as "wicked" decision, because simply defining the problem can turn into a major task. Wicked problems are associated with manager conflicts over objectives and alternatives, rapidly changing circumstances, and unclear linkages among decision elements, Managers dealing with a wicked decision may hit on a solution that merely proves they failed to correctly define the problem to begin with.

Today's managers and organizations are dealing with a higher percentage of non- programmed decisions because of the rapidly changing business environment. As outlined today's has increased both the number and complexity of decisions that have to be made and created a need for new decision – making processes. Managers in rapidly changing internet – based companies, or e – corporations, for example, often have to make quick decisions based on very limited information. "If your instinct is to wait, ponder, and perfect, then you're dead [in an internet business]," says Ruthann Quindlen, a partner with institutional Venture Partners, Jay Walker, founder and vice – president of Priceline.com, believes mangers in e-corporations, have to focus not on today's problems but on the next generation of problems. For example, Walker and other top managers made the decision to invest resources to hire Rick Braddock, former president of Citicorp, for his skills at managing a billion-dollar company even though Priceline.com was doing only a few million dollar company even though Priceline.com was doing only a few million dollars worth of business at the time. Another example is globalization. The trend toward moving production to low –wage countries has manager all over corporate America struggling with ethical decisions concerning working conditions in the Third World and the loss of manufacturing jobs in small American Communities. In one Tennessee community where the unemployment rate is 18 percent, six hundred workers recently lost their jobs because most garment manufacturing is now sent overseas.

INDIVIDUAL DECISION MAKING

Individual decision making managers can be described in two ways. First is the rational approach, which suggests how manager should try to make decisions. Second is the bounded rationality perspective, which describes how decisions actually have to be made under severe time and resource constraints. The rational approach is an ideal manager may work toward but never reach.

RATIONAL APPROACH
The rational approach to individual decision making stresses the need for systematic analysis of a problem followed by choice and implementation in a logical step – by step sequence. The rational approach was developed to guide individual decision making because many managers were observed to be unsystematic and arbitrary in their approach to organizational decisions. Although the rational model is an " ideal " not fully achievable in the real world of uncertainty, complexity, and rapid change highlighted in example, the model does help managers think about decision more clearly and rationally. Managers should use systematic procedures to make decisions whenever possible, when managers have a deep understanding of the rational decision – making process, it can help them make better decision even when there is a lack of clear information. The authors of a recent book on decision making use the example of the U.S. Marines, who have a reputation for handling, complex problems quickly and decisively However, he Marines are trained to quickly go through a series of mental routines that help them analyze the situation and take action.

According to the rational approach, decision making can be broken down into eight steps, as illustrated in below.
1. Monitor the decision environment. In the first step, a manager monitors internal and external information that will indicate deviations form planned or acceptable behavior. He or she talks to colleagues and reviews financial statements, performance evolutions, industry indices, competitors' activities, and so forth. For example, during the pressure – packed five-week Christmas season, Linda Koslow, general manager of Marshall Field's Oakbrook, Illinois, store, checks out competitors around the mall, eyeing whether they are marking down merchandise. She also scans printouts of her store's previous day's sales to learn what is or is not moving.

2. Define the decision problem. He manager responds to deviations by identifying essential details for the problem; where, when, who was involved, who was affected, and how current activities are influenced. For Koslow, this means defining whether store profits are low because overall sales are less than expected or because certain lines of merchandise are not moving as expected.

3. Specify decision objectives. The manager determines what performance out- comes should be achieved by a decision.

4. Diagnose the problem. In this step, the manager digs below the surface to analyze the cause of the problem. Additional data may be gathered to facilitate this diagnosis, Understanding the cause enables appropriate treatment. For Koslow at Marshall Fields, the cause of slow sales may be competitors' marking down of merchandise or Marshall Field's failure to display hot-selling items in a visible location.

5. Develop alternative solutions. Before a manager can move ahead with a decisive action plan, he or she must have a clear understanding of the various options available to achieve desired objective. The manager may seek ideas and suggestions from other people. Koslow's alternatives for increasing profits could include buying fresh merchandise, running a sale, or reducing the number of employees.

6. Evaluate alternative. This step may involve the use of statistical techniques or personal experience to assess the probability of success. The merits of each alternative are assessed as well as the probability that it will reach the desired objectives.
7. Chose the best alternative. This step is the core of the decision process. The manager uses his or her analysis of the problem, objectives, and alternatives to select a single alternative that has the best chance for success. At Marshall Fields, Koslow may choose to reduce the number of staff as a way to meet the profit goals rather than increase advertising or markdowns.

8. Implement the chosen alternative. Finally, the manger uses managerial, administrative, and persuasive abilities and gives directions to ensure that the decision is carried out. The monitoring activity (step 1) begins again as soon as the solution is implemented. For Linda Koslow, the decision cycle is a continuous process, with new decision, made daily based on monitoring her environment for problems and opportunities?

The first steps in this sequence are the problem identification stage, and the next four steps are the problem solutions stage of decision making, as indicated previously. All eight steps normally appear in a manager's decision, although each step may not be a distinct element. Managers may know from experience exactly what to do in a situation, so one or more steps will be minimized. The following case illustrates how the rational approach I used to make a decision about a personnel problem.

BOUNDED RATIONALITY PERSPECTIVE
The point of the rational approach is that manager should try to use systematic procedures to arrive at good decisions. When organizations are facing little competition and are dealing with well – understood issues, manager generally use rational procedures to make decisions. Yet search into managerial decisions making shows manager often are unable to follow an ideal procedure. In today's competitive environment, decisions often must be made very quickly. Time pressure, a large number of internal and external factors affecting a decision, and the ill- defined nature of many problems make systematic analysis virtually impossible, managers have only so much time and mental capacity and, hence cannot evaluate every goal, problem, and alternative. The attempt to be rational is bounded (limited) by the enormous complexity of many problems. There is a limit to how rational manager can be. For example, an executive in hurry may have a choice of fifty ties on a rack but will take the first or second one that matches his suit. The executive don't carefully weigh all fifty alternatives because the short amount of time and the large number of plausible alternatives would be overwhelming. The manager simply selects the first tie that solves the problem and moves on the next task.

Large organizational decisions are not only too complex to fully comprehend, but many other constraints impinge on the decision maker, as illustrated. The circumstances are ambiguous, requiring social support, a shared perspective on what happens, and acceptance and agreement, for example, in a study of the decision making surrounding the Cuban missile crisis, the executive committee in the White House knew a problem existed but was unable to specify exact goals and objective. The act of discussing the decision led to personal objections and finally to the discovery of desired objectives that helped clarify the desired course of actions and possible consequences. In addition, personal constraints – such as decision style, work pressure, desire for prestige, or simple feelings of insecurity – may constrain either the search for alternatives or the acceptability of alternatives. All of these factors constrain a perfectly rational approach that should lead to an obviously ideal choice. Even seemingly simple decisions, such as selecting a job on graduation from college, can quickly become so complex that a bounded rationality approach is used. Graduating students have known to search for a job until they have two or three acceptable job offers, at which point their search activity rapidly diminishes. Hundreds of firms may be available for interviews, and two or three job offers are far short of the maximum number that would be possible if students made the decision based on perfect rationality.

The bounded rationality perspective is often associated with intuitive decision processes, in intuitive decision making, experience and judgment rather than sequential logic or explicit reasoning are used to make decision. Intuition is not arbitrary or irrational because it is based on years of practice and hands – on experience, often stored in the subconscious. When managers use their intuition based on long experience with organizational issues, they more rapidly perceive and understand problems and they develop a gut feeling or hunch about which alternative will solve a problem, speeding the decision – making process. Indeed, many universities are offering courses in creativity and intuition so business students can learn to understand and rely on these processes.

In a situation of great complexity or ambiguity, previous experience and judgment are needed to incorporate intangible elements at both the problem identification and problem solution stages. A study of manager problem finding showed that thirty of thirty – three problems were ambiguous and ill defined. Bits and scraps of unrelated information from informal sources resulted in a pattern in the manager's mind. The manager could not "prove" a problem existed but knew intuitively that a certain area needed attention. A too simple view of a complex problem is often associated with decision failure, and research shows managers are more likely to respond intuitively to a perceived threat to the organization than to an opportunity

Intuitive processes are also used in the problem solutions stages. A survey found that executives frequently made decisions without explicit reference to the impact on profits or to other measurable outcomes. These factors cannot be quantified in a systematic way. So intuition guided the choice of a solution. Managers may make a decision based on what they sense to be right rather than on what they can document with hard data.

Partizio Bertelli, CEO of Prada, has transformed the family business into a European fashion powerhouse by making good intuitive decision --- some of which seem inexplicable to his industry colleagues. Even though Bertelli's decision often seem to come from " out of the blue, " they are actually based on a depth of experience,

knowledge, and understanding developed over many years in the fashion business. Another example is Jodie Foster, who is known for making good decisions based on gut instinct at her production company, Egg Pictures. Foster made her movie debut at the age of eight, and her manager mother involved her in almost all decision making regarding roles, script changes, and so forth, " she understands Hollywood almost mathematically," said one producers. Thus, intuition may be thought of as "recognition" because when managers develop a depth of experience and knowledge in a particular area, problem of information that has largely been forgotten by the conscious mind.

However, managers may walk a fine line between two extremes; on the one hand, making arbitrary decisions without careful study and on the other, relying obsessively on numbers and rational analysis. Remember that the bounded rationality perspective and the use of intuition apply mostly to non – programmed decisions. The novel, unclear, complex aspects of non-programmed decisions mean hard data and logical producers are not available. A study of executive decision making found that managers imply could not use the rational approach for non-programmed decision, such as when to buy a CT scanner for an osteopathic hospital or whether a city had a need for and could reasonably adopt an enterprise resources planning system. In those cases, manager had limited time and resources, and some factors simply couldn't be measured and analyzed. Trying to quantify such information could cause mistakes because it may over simplify decision criteria. When Michael Eisner was president of Paramount Pictures, he learned to rely on intuition for making non-programmed decisions. His decision approach was astonishingly successful at Paramount and, more recently, at Disney

ORGANIZATIONAL DECISION MAKING

Organizations are composed of managers who make decisions using both rational and intuitive processes; but organization – level decisions are not usually made by a single manager. Many organizational decisions involve several managers. Problem identification and problem solution involve many departments, multiple viewpoints, and even other organizations, which are beyond the scope of an individual manager.

The processes by which decision are made in organization are influenced by a number of factors, particularly the organization's own internal structures as well as the degree of stability or instability of the external environment. Research into organization – level decision making has identified four types of organizational decision – making processes. The management science approach, the Carnegie models the incremental decision process model, and the garbage can model.

MANAGEMENT SCIENCE APPROACH
The management science approach to organizational decision making is the analog to the rational approach by individual managers. Management science came into being during World War II. At that time, mathematical and statistical techniques were applied to urgent, large – scale military problems that were beyond the ability of individual decision makers. Mathematician, physicist, and operations researchers used systems analysis to develop artillery trajectories, antisubmarine strategies, and bombing strategies such as salving (discharging multiple shells simultaneously). Consider the problem of a battleship trying to sink an enemy ship several miles away. The calculation for aiming the battleship's guns should consider distance, wind speed, shell size, speed and direction of ships, pitch and roll of the firing ship, and curvature for the earth. Method for performing such calculations using trial and error and intuition are not accurate, take far too long, and may never achieve success.

This is where management science came in. Analysts were able to identify the relevant variables involved in aiming a ship's guns and could model them with the use of mathematical equations. Distance, speed, pitch, roll, shell size, and so on could be calculated and entered into the questions. The answer was immediate, and the guns could begin firing. Factors such as pitch and roll were soon measured mechanically and fed directly into the targeting mechanism. Today, the human element is completely removed from the targeting process. Radar picks up the targets, and the entire sequence is computed automatically.

Management science yielded astonishing success for many military problems. This approach to decision making diffused into corporations and business schools, where techniques were studied and elaborated. Today, many corporations have assigned departments to use these techniques. The computer department develops quantities data for analysis. Operations research departments use mathematical models to quantify relevant variables and develop a quantitative representation of alternative solutions and the probability of each one solving the problem. These departments also use such devices as linear programming, Bayesian statistics, PERT charts, and computer simulations.

Management science is an excellent device for organizational decision making when problems are analyzable and when the variables can be identified and measured. Mathematical models can contain a thousand or more variables, each one relevant in some way to the ultimate outcome. Management science techniques have been used to correctly solve problems as diverse as finding the right spot for a church camp, test marketing the first of a new family of products, drilling for oil, and radically altering the distribution of telecommunications services. Other problems amenable to management science techniques are the scheduling of airline employees, ambulance technicians, telephone operators, and turnpike toll collectors. The SABRE Group, perhaps best known for its travel reservations system, is one of the largest users of the management science approach.

Management science can accurately and quickly solve problems that have too many explicit variables for human processing. This system is at its best when applied to problems that are analyzable, are measurable, and can be structured in a logical way. Increasingly sophisticated computer technology and software programs are allowing the expansion of management science to cover a broader range of problems than ever before. For example, GE Capital Mortgage insurance Company used management science techniques to improve the decision making of loss management representatives, who have to decide whether the company can "cure" loans for customer who has stopped making payments or whether it will have to recommend foreclosure on the loan. By crating a sophisticated decision – making software program called Loss Mitigation Optimizer that analyze and measures relevant variables, GE Capital Mortgage Insurance improved its cure rates from 30 percent of cases to more than 50 percent, while

representatives were taking 30 to 50 percent less time per deal. Saving jumped dramatically, to about $8,000 per case, resulting in a saving of $ 115 million in net income over an eighteen – month period.

Management science has also produced many failures. In recent years, many banks have begun using computerized scoring systems to rate those applying for credit, but some argue that human judgment is needed to account for extenuating circumstances. In one case, a member of the Federal Reserve Board, the agency that sets interest rates and regulates banks, was denied a Toys "R" Us credit card based on his computerized score. One problem with the management science approach is that quantitative data are not rich and do not convey tacit knowledge. Informal cues that indicate the existence of problems have to be sensed on a more personal basis by managers. The most sophisticated mathematical analyses are of no value if the important factors cannot be quantified and included in the model. Such things as competitor reactions, consumer "tastes," and product "warmth" are qualitative dimensions. In these situations, the role of management science is to supplement manager decision making. Quantitative result can be given to managers for discussion and interpretation along with their informal opinions, judgment, and intuition. The final decision can include qualitative factors as well as quantitative calculations.

CARNEGIE MODEL

The Carnegie Model of organizational decision making is based on the work of Richard Cyert, James March, and Herbert Simon, who were all associated with Carnegie-Mellon University. Their research helped formulate the bounded rationality approach to individual decision making as well as provide new insights about organization decisions. Until their work, research in economics assumed that business firms made decision as a single entity, as if all relevant information were funneled to the top decision maker for a choice. Research by the Carnegie group indicated that organization – level decisions involved many managers and that a final choice was based on a coalition among those mangers. A coalition is an alliance among several managers who agree about organizational goals and problem priorities. It could include manager from line departments, staff specialist, and even external groups, such as powerful customers, bankers, or union representatives

Management coalitions are needed during decision making for two reasons. First, organizational goals are often ambiguous, and operative goals of departments are often inconsistent. When goals are ambiguous and inconsistent, managers disagree about problem priorities. They must bargain about problems and build a coalition around the question of which problems to solve.

The second reason for coalitions is that individual managers intend to rational but function with human cognitive limitations and other constraints, as described earlier, Managers do not have the time, resources, or mental capacity to identify all dimensions and to process all information relevant to a decision. These limitations lead to coalition-building behavior. Mangers talk to each other and exchange points of view to gather information and reduce ambiguity, people who have relevant information or a stake in a decision outcome are consulted. Building a coalition will lead to a decision that is supported by interested parties.

The process of coalition formation has several implications for organizational decision behavior. First, decisions are made to satisfice rather than to optimize problem solutions. Satisficing mean organization accept a "satisfactory" rather than a maximum level of performance, enabling them to achieve several goals simultaneously. In decision making, the coalition will accept a solution that is perceived as satisfactory to all coalition members. Second, managers are concerned with immediate problems and short-run solutions. They engage in what Cyert and March called problematic search. Problematic search means managers look around in the immediate environment for solutions to quickly resolve problems. Managers don't expect a perfect solution when the situation is ill defined and conflict – laden. This contrast with the management science approach, which assumes that analysis, can uncover every reasonable alternative. The Carnegie model says search behavior is just sufficient to produce a satisfactory solution and that mangers typically adopt the first satisfactory solution that emerges. Thirds, discussion and bargaining are especially important in the problem identifications stage of decision making. Unless coalition members perceive a problem, action will not be taken. The Carnegie model points out that building agreement through a managerial coalition is a major part of organizational decision making. This is especially true at upper management levels. Discussion and bargaining are time consuming, so search procedures are usually simple and the selected alternative satisfices rather than optimizes problem solution. When problems are programmed – are clear and have been seen before – the organization will rely on previous procedures and routines, Rules and procedures prevent the need for renewed coalition formation and political bargaining. Non-programmed decision, however, requires bargaining and conflict resolution.

One of the best and most visible coalition builders of recent years was former President George Bush, who would seek a broad – based coalition at the start of an important decision process. During the decision process regarding the Persian Gulf War, President Bush kept up a barrage of personal calls visits to world leaders to gain agreement for his vision of forcing Saddam Hussein from Kuwait and for shaping a " New world order,"

Organization suffers when managers are unable to build a coalition around goals and problem priorities, as illustrated by the case of Encyclopedia Britannica.

Encyclopedia Britannica
For most of its 231 year history, the Encyclopedia Britannica was an illustrious repository of cultural and historical knowledge almost a national treasure. Generations of students and Librans relied on the Britannica – but that was before CD-ROMs and the internet became the study tools of choice suddenly, the thirty – two volume collection of encyclopedias. Stretching four feet on a bookshelf and costing as much as a personal computer seemed destined to fade into history.

When Swiss – based financier Joseph Safra bought Britannica. He discovered one of the reasons. For nearly a decade, managers had bickered over goals and priorities. Some top executives believed the company needed to invest more in electronic media. But others supported Britannica's traditional direct-to-home sales force eventually the company's Compton unit, a CD ROM pioneer now being used by millions of consumers was sold leaving Britannica without any presence in the new market in the 1980s. Microsoft had approached Britannica to develop a CD – ROM encyclopedia, when it didn't work out. Microsoft went with Funk & Wagnall's and developed Encarta. Microsoft arranged to have Encarta preinstalled on PCs, so the CD-ROM was essentially free to new PC buyers, when Britannica finally came out with its CD-ROM version. However, it was priced at a staggering $1,200. The squabbling among mangers, owners and editors about product development, pricing, distribution and other important decision contributed to the company's decline.

The first step in Safra's turnaround strategy was to install a new top management team, led by chief executive Don Yannias, one of Safr's long – time advisors. The team immediately coalesced around the important problem of establishing a presence in the world of electronic media and rushed out a series of new products, including a revamped graphics – intensive CD-ROM package. A complete online subscription service and an internet search engine that filters out marginal Web pages and offers users what Britannica editors think are the most useful sites. The company dropped Britannica's prices to be more competitive and did away with the direct-to-home sales force in favor of selling through bookstores, super chains and online. But the online subscription fee of $85 a year was not well- received in the internet world. In October 1999,

Britannica stunned both followers and critics by posting the entire encyclopedia on the internet –for free. Britannica took the gamble that it would come out ahead by selling advertising on its Web Sites, initial response was highly favorable, suggesting that the gamble might pay off.

Encyclopedia Britannica has an unimpeachable reputation, and is now hoping to use that advantage online, where sources are often hard to verify. "We want to become the most trusted source of information learning and knowledge in the online environment," said Jorge Cauz, senior vice-president of marketing at Britannica.com Inc. the internet arm of the company.

Britannica's sales to schools and libraries remain strong. But industry experts say that the Web site is the key to recapturing Britannica's key market – parents who invest in their children's future.

The Carnegie model is particularly useful at the problem identification stage. However, a coalition of key department managers is also important for smooth implementation of a decision, particularly a major reorganization, top executives at Britannica realize the importance of building coalitions for decision making to keep the company moving forward, when top managers perceive a problem or want to make a major decisions, they need to reach agreement with other managers to support the decision.

INCREMENTAL DECISION PROCESS MODEL

Henry Mintzberg and his associates at McGill University in Montreal approached organizational decision making from a different perspective. They identified twenty – five decisions made in organizations and traced the events associated with these decisions from beginning to end. Their research identified each step in the decision sequence. This approach to decisions making, called the incremental decision process model, places less emphasis on the political and social factors described in the Carnegie model, but tells more about the structured sequence of activities undertaken from the discovery of a problem to its solution.

Sample decisions in Mintzberg's research included choosing which jet aircraft to acquire for a regional airline, developing a new supper club, developing a new container terminal in a harbor, identifying a new market for a deodorant, installing a controversial new medical treatment in a hospital and firing a star announcer. The scope and importance of these decisions are revealed in the length of time taken to complete them. Most of these decisions took more than a year, and one – third of them took more than two years, most of these decisions were non-programmed and required custom – designed solutions.

One discovery from this research is that major organization choices are usually a series of small choices that combine to produce the major decision. Thus, many organizational decisions are a series of nibbles rather than a big bite. Organization moves through several decision points and may hit barriers along the way. Mintzberg called these barriers decision interrupts. An interrupt may mean an organization has to cycle back through a previous decision and try something new. Decision loops or cycles are one way the organization learns which alternatives will work. The ultimate solution may be very different from what was initially anticipated.

Identification Phase: the identification phase begins with recognition. Recognition means one or more managers become aware of a problem and the need to make a decision. Recognition is usually stimulated by a problem or an opportunity. A problem exist when elements in the external environment change or when internal performance is perceived to be below standard. In the case of firing a radio announcer, comments about the announcer came from listeners, other announcers, and advertisers. Managers interpreted these cues until a pattern emerged that indicated a problem had to be dealt with.

The second step is diagnosis, which is where more information is gathered if needed to define the problem situation. Diagnosis may be systematic or informal, depending upon the severity of the problem. Severe problems do not have time for extensive diagnosis; the response must be immediate. Mild problems are usually diagnosed in a more systematic manner.

Development Phase: The development phase is when a solution is shaped to solve the problem defined in the identification phase. The development of a solution takes one of two directions. First, search procedures may be used to seek out alternatives within the organizations repertoire of solutions. For example, in the case of firing a star announcer, managers asked what the radio station had done the last time an announcer had to be let go. To conduct the search, organization participants may look into their own memories, talk to other managers, or examine the formal procedures of the organization.

The second direction of development is to design a custom solution. This happens when the problem is novel so that previous experience has no value. Mintzberg found that in these cases, key decision makers have only a vague idea of the ideal solution. Gradually, through a trial – and – error process, a custom-designed alternative will emerge. Development of the solution is a grouping, incremental procedure, building a solution brick by brick.

Selection Phase: This selection phase is when the solution is chosen. This phase is not always a matter of making a clear choice among alternatives. In the case of custom-made solution, selection is more an evolution of the single alternative that seems feasible.

Evolution and choice may be accomplished in three ways. The judgment form of selection is used when a final choice falls upon a single decision maker, and the choice involves judgment based upon experience. In analysis, alternatives are evaluated on a more systematic basis, such as with management science techniques. Mintzberg found that most decisions did not involve systematic analysis and evaluation of alternatives. Bargaining occurs when selection involves a group of decision makers. Each decision maker may have a different stake in the outcome, so conflict emerges. Discussion and bargaining occur until a coalition is formed, a in the Carnegie model described earlier.

When a decision is formally accepted by the organization, authorization takes place. The decision may be passed up the hierarchy to the responsible hierarchical fewer cartridges (interrupt) the bard eventually made the decision to continue with the new blades. Which would have a blue indicator strip that would fade to white and signal when it's time for a new cartridge, the board gave final approval for production of the March 3 to begin in the fail of 1997.

The new razor was introduced in the summer of 1998 and began smoothly sliding off shelves Gillette expects to recover its huge investment in record time. Now Gillette is starting the process of searching for the next shaving breakthrough all over again, using new technology that can examine a razor bale at the atomic level and high – speed video that can capture the act of cutting a single whisker, the company will move ahead in increments to create its next major shaving product, projected for release in 2006.

At Gillette, the identification phase occurred because executives were aware of the need for a new razor and became alert to the idea of using three blades to produce a closer shave. The development phase was characterized by the trial – and – error custom design leading to the Mach3. During the selection phase, certain approaches were found unacceptable, causing Gillette to cycle back and redesign the razor, including using thinner, stronger blades. Advancing once again to the selection phase, the Mach3 passed the judgment of top executives and board members, and manufacturing and marketing budgets were quickly authorized. This decision took more than a decade, finally reaching completion in the summer of 1998.

THE LEARNING ORGANIZATION

Rapidly changing business environment is creating grater uncertainty for decision makers; organizations that are particularly affected by this trend include internet-based companies as well as those companies shifting to the learning organization concept. These organizations are marked by a tremendous amount of uncertainty at both the problem identification and problem solution stages. Two approaches to decision making have evolved to help managers cope with this uncertainty and complexity. One approach is to combine the Carnegie and incremental process models just described. The sound is a unique approach called the garbage can model.

COMBINING THE INCREMENTAL PROCESS AND CARNEGIE MODELS

The Carnegie description of coalition building is especially relevant for the problem identification stage. When issues are ambiguous, or if managers disagree about problem severity, discussion, negotiation, and coalition building are needed. Once agreement is reached about the problem to be tackled, the organization can move toward a solution.

The incremental process model tends to emphasize the steps used to reach a solution. After managers agree on a problem, the step – by – step process is a way of trying various solutions to see what will work. When problem solution is unclear, a trial – and error solution may be designed.

The two models do not disagree with one another. They describe how organizations make decision when either problem identification or solution is uncertain. When both parts of the decision process are highly uncertain simultaneously, which is often the case in learning organizations, the organization is in an extremely difficult position. Decision processes in that situation may be a combination of Carnegie and incremental process models, and this combination may evolve into a situation described in the garbage can model.

GARBAGE CAN MODEL

The garbage can model is one of the most recent and interesting descriptions of organizational decision processes. It is not directly comparable to the earlier models, because the garbage can model deals with the pattern or flow of multiple decisions within organizations, whereas the incremental and Carnegie models focus on how a single decision is made. The garbage can model helps you think of the whole organization and the frequent decision being made by managers throughout.

Organized Anarchy: The garbage can model was developed to explain the pattern of decision making in organizations that experience extremely high uncertainty, such as the growth and change required in a learning organization. Michael Cohen, James March, and Johan Olsen, the originator, of the models, called the highly uncertain conditions an organized anarchy, which is an extremely organic organization. Organized anarchies do not rely on the normal vertical hierarchy of authority and bureaucratic decision rules. They are caused by three characteristics;

1.   Problematic preferences, Goals, problems, alternatives, and solutions are ill defined. Ambiguity characterizes each step of a decision process.
2.   Unclear, poorly understood technology. Cause – and effect relationships within the organization are difficult to identify. An explicit database that applies to decisions is not available.
3.   Turnover, organizational positions experience turnover of participants, in additions, employees are busy and have only limited time to allocate to any one problem or decision. Participation in any give decision will be fluid and limited.

The organized anarchy describes organizations characterized by rapid change and a collegial, non-bureaucratic environment. No organization fits this extremely organic circumstance all the time, although learning organizations and today's internet – based companies may experience it much of the time. Many organizations will occasionally find themselves in positions of making decision under unclear, problematic circumstances. The garbage can model can is useful for understanding the pattern of these decisions.

Streams of Events: The unique characteristic of the garbage can model is that the decision process is not seen as a sequence of steps that begins with a problem and ends with a solution. Indeed, problem identification and problem solution may not be connected to each other. An idea may be proposed as a solution when no problem is specified. As problem may exist and never generate a solution. Decisions are the outcome of independent streams of events within the organization. The four streams relevant to organizational decision making are as follows;

1.   Problems. Problems are points of dissatisfaction with current activities and performance. They represent a gap between desired performance and current activities. Problems are perceived to require attention. However, they are distinct from solutions and choices. A problem may lead to a proposed solution or it may not. Problem may not be solved when solutions are adopted.

2.   Potential solutions. A solution is an idea somebody proposes for adoption. Such ideas may be brought into the organization by new personnel or may be invented by existing personnel. Participants may simply be attracted to certain ideas and push them as logical choices regardless of problems. Attraction to an idea may cause an employee to look for a problem to which the idea can be attached and, hence, justified. The point is that solutions exist independent of problems.

3.   Participants. Organization participants are employees who come and go throughout the organization. People are hired, resigned, and fired. Participants vary widely in their ideas, perception of problems, experience, values, and training. The problems and solutions recognized by one manger will differ fro m those recognized by another manager.

4.   Choice opportunities. Choice opportunities are occasions when an organization usually makes a decision. They occur when contracts are signed, people are hired, or a new product is authorized. They also occur when the right mix of participants, solutions, and problems exists. Thus, mangers that happened to learn of a good idea may suddenly become aware of a problem to which it applies and, hence can provide the organization with a choice opportunity. Match – ups of problems and solution often result in decisions.

With the concept of four streams, the overall pattern of organizational decisions making takes on a random quality. Problems, solution, participants, and choices all flow through the organization. When a problem, solution and participant happen to connect at one point, a decision may be made and the problem may be solved; but if the solution does not fit the problem, the problem may not be solved. Thus, when viewing the organization as a whole and considering its high level of uncertainty, one sees problems arise that are not solved and solutions tired that do not work. Organization decision is disorderly and not the result of a logical, step – by step sequence. Events may be so ill defined and complex that decision, problems, and solutions act as independent events. When they connect, some problems are solved, but many are not.

Consequences: Four consequences of the garbage can decision process for organizational decision making are as follow.
1.   Solutions may be proposed even when problems do not exist. An employee may be sold on an idea and may try to sell it to the rest of the organization. An example was the adoption of computers by many organizations during the 1970s. The computer was an exciting solution and was pushed by both computer manufactures and systems analysts within organizations. The computer did not solve any problems in those initial applications. Indeed, some computers caused more problems that they solved.

2.   Choices are made without solving problems. A choice such as creating a new department may be made with the intention of solving a problem; but, under conditions of high uncertainty the choice may be incorrect, moreover, many choices just seem to happen, People decide to quit, the organization's budget is cut, or a new policy bulletin is issued. These choices may be oriented toward problems but do not necessarily solve them.

3.   Problems may persist without being solved, Organizations participants get used to certain problems and give up trying to solve them; or participants may not know how to solve certain problem because the technology is unclear. A university in Canada was placed on probation by the American Association of university Professors because a professor had been denied tenure without due process. The probation was a nagging annoyance that the administrators wanted to remove. Fifteen years later, the non-tenured professor died. The probation continues because the university did not acquiesce to the demands of the heirs of the association to reevaluate the case. The university would like to solve the problem, but administrators are not sure how, and they do not have the resources to allocate to it. The probation problem persists without a solution.

4.   A few problems are solved. The decision process does work in the aggregate. In computer simulation models of the garbage can model, important problems were often resolved. Solutions do connect with appropriate problems and participants so that a good choice is made. Of course, not all problems are resolved when choices are made, but the organization does move in the directions of problem reduction.

The effects of independent streams and the rather chaotic decision processes of the garbage can model can be seen in the production of the classic film Casablanca.

Casablanca
The public flocked to see Casablanca when it opened in 1942 the film won Academy Awards for best picture. Best screenplay. And best director, and is recognized today by film historians and the public alike as a classic. But up until the filming of the final scene, no one involved in the production of the now –famous story even knew how it was going to end.

Everybody comes to Rick's wasn't a very good play. But when it landed on Hal Wallis's desk at Warner Brothers, Wallis spotted some hot- from-the – headlines potential, purchased the rights, and changed the name to Casablanca to capitalize on the geographical mystique that story offered. As series of negotiations led to casting Humphrey Bogart as Rick.., even though studio chief Jack Warner questioned his romantic appeal. The casting of Ingrid Bergman as llsa was largely by accident. A fluke had left an opening in her usually booked schedule. The screenplay still wasn't written.

Filming was chaotic Writers made script changes and plot revisions daily. Actors were unsure of how to develop their characterizations. So they just did whatever seemed right at the time. For example, when Ingrid Bergman wanted to know which man should get most of her on- screen attention, she was told. "We don't know yet –just play it. Well in between," Scenes were often filmed blindly with no idea of how they were supposed to fit in the overall story. Amazingly, even when it came time to shoot the climactic final scene, no one involved in the production seemed to know who would get the girl" a legend still persists that two versions were written. During filming, Bogart disagreed with director Michael Curtiz's view that Rick should kiss llsa good –bye, and Hal Wallis

was summoned to mediate because the cast received their scripts only hours before filming began, they couldn't remember their lines, causing continual delays.

Some industry analysts predicted disaster, but the haphazard process worked Ingrid Bergman plays it "in between" just right Bogart's characterization of Rick is perfect. The tale of love and glory and heartbreaking romance couldn't have been told better than it was in Casablanca. In addition, fortuitous circumstances outside the studio – contributed to the film's commercial success. Just eighteen days before the premiere on Thanksgiving Day. 1942, the Allies invaded North Africa and fought the Battle of Casablanca. When the film opened nationwide. President Franklin D. Roosevelt and Prime Minister Winston Churchill presided over the Casablanca Conference a historical coincidence that was clearly a boon to the film, helping to push its initial gross to $ 3.7 million.

The production of Casablanca was not a rational process that started with a clear problem and ended with a logical solution. Many events occurred by chance and were intertwined, which characterizes the garbage can model. Everyone from the director to the actors continuously added to the stream of new ideas to the story. Some solutions were connected to emerging problems; the original script arrived just when Hal Wallis was looking for topical stories; and Bergman was surprisingly available to be cast in the role of llsa. The actors (participants) daily made personal choices regarding characterization that proved to be perfect for the story line. Other events that contributed to Casablanca's success were not even connected to the film --- for example, the invasion of North Africa only eighteen days before the premiere. Overall, the production of Casablanca had a random, chancy flavor that is characteristic of the garbage can model. As evidenced by the film's huge success and continuing popularity after more than fifty years, the random, garbage can decision process did not hurt the film or the studio.

The garbage can model, however, doesn't always work --- in the movies or in organization. A similar haphazard process during the filming of water world led to the most expensive film in Hollywood history and a decided box-office flop for Universal Pictures.

CONTINGENCY DECISION – MAKING FRAME WORK
There are several approaches to organizational decision making, including management science, the Carnegie model, the incremental decision process model, and the garbage can model. It has also discussed rational and intuitive decision processes used by individual managers. Each decision approach is a relatively accurate description of the actual decision process, yet all differ from each other. Management science, for example, reflects a different set of decision assumptions and procedures that does the garbage can model.

One reason for having different approaches is that they appear in different organizational situations. The use of an approach is contingent on the organization setting. Two characteristics of organization that determine the use of decision approaches are (1) problem consensus and (2) technical knowledge about the means to solve those problems. Analyzing organizations along these two dimensions suggests which approach will be used to make decisions.

PROBLEM CONSENSUS
Problem Consensus refers to the agreement among managers about the nature of a problem or opportunity and about which goals and outcomes to pursue. This variable ranges complete agreement to complete disagreement. When managers agree, there is little uncertainty – the problems and goals of the organizations are clear, and so are standards of performance. When managers disagree, organization direction and performance expectations are in dispute, creating a situation of high uncertainty. One example of problem uncertainty occurred at Wal –Mart stores regarding the issue of parking – lot patrols. Some managers presented evidence that golf –cart patrols significantly reduced auto theft, assault, and other crimes in the stores' lots, as well as increased business because they encouraged more night time shopping. While these managers argued that the patrols should be used, others believed the patrols were not needed and were too expensive, emphasizing chat parking – lot crime was a society issue rather than a store issue.

Problem consensus tends to be low when organization are differentiated, uncertain environments cause organizational departments to differentiate from one another in goals and attitudes to specialize in specific environmental sectors. This differentiation leads to disagreement and conflict about organizational goals and problem priorities. When differentiation among departments or division is high, managers must make a special effort to build coalitions during decision making.

Problem consensus is especially important for the problem identification stage of decision making. When problems are clear and agreed on, they provide clear standards and expectations for performance. When problem are not

agreed on, problem identification is uncertain and management attention must be focused on gaining agreement about goals and priorities.

TECHNICAL KNOWLEDGE ABOUT SOLUTIONS
Technical Knowledge refers to understanding and agreement about how to solve problems and reach organizational goal. This variable can range from complete agreement and certainty to complete disagreement and uncertainty about cause – effect relationships leading to problem solution. One example of low technical knowledge occurred at PepsiCo's 7-Up division. Managers agreed on the problem to be solved – they wanted to increase market share from 6 percent to 7 percent. However, the means for achieving this increase in market share were not known or agreed on. A few managers wanted to use discount pricing in supermarkets. Other managers believed they should increase the number of soda fountain outlets in restaurants and fast – food chains. A few other managers insisted that the best approach was to increase advertising through radio and television. Managers did not know what would cause an increase in market share. Eventually, the advertising judgment prevailed at 7 – Up's low technical knowledge about how to solve the problem.

When means are well understood, the appropriate alternatives can be identified and calculated with some degree of certainty. When means are poorly understood, potential solutions are ill defined and uncertain. Intuition, judgment, and trial and error become the basis for decisions.

CONTINGENCY FRAME WORK

Rational decision procedures are used because problems are agreed on, and cause – effect relationships are well understood so there is little uncertainty. Decisions can be made in a computational manner. Alternatives can be identified and the best solution adopted through analysis and calculations. The rational models both for individual and for the organization are appropriate when problems and the means for solving them are defined.

In cell 2, there is high uncertainty about problems and priorities, so bargaining and compromise is used to reach consensus. Tackling one problem might means the organization must postpone action on other issues. The priorities given to respective problems are decided through discussion, debate, and coalition building.
Managers in this situation should use broad participation to achieve consensus in the decision process. Opinions should be surfaced and discussed until compromise is reached. The organization will not otherwise move forward as an integrated unit. In the case of Wal-Mart, managers will discuss conflicting opinions about the benefits and costs of parking – lot patrols.

The Carnegie model applies when there is dissension about organizational problems. When groups within the organization disagree, or when the organization is in conflict with constituencies (government regulators, suppliers, unions), bar gaining and negotiation are required. The bargaining strategy is especially relevant to the problem identification stage of the decision process. Once bargaining and negotiation are completed, the organization will have support for one direction.

Cell 3. In a cell situation, problems and standards of performance are certain, but alternative technical solutions are vague and uncertain. Techniques to solve a problem are ill defined and poorly understood. When an individual manager faces this intuition, intuition will be the decision guideline. The manager will rely on past experience and judgment to make a decision. Rational, analytical approaches are not effective because the alternatives cannot be identified and calculated. Hard facts and accurate information are not available.

The incremental decision process model reflects trial and error on the part of the organization. Once a problem is identified, a sequence of small steps enables the organization to learn a solution. As new problems arise, the organization may recycle back to an earlier point and star over. Eventually, over a period of months or years, the organization will acquire sufficient experience to solve the problem in a satisfactory way. Solving the engineering and manufacturing problems for he Mach3 razor, described earlier, is an example of cell 3 situations. Gillette engineers had to use trial and error to develop an efficient manufacturing process.

The situation in cell 3, of senior manager agreeing about problems but not knowing how to solve them, occurs frequently in business organization. If managers use incremental decision in such situations, they will eventually acquire the technical knowledge to accomplish goals and solve problem.

Cell 4. The situation in cell 4, characterized by high uncertainty about both problems and solutions is difficult for decision making. An individual manager making a decision under this high level of uncertainty can employ

techniques from both cell 2 and cell 3. The manger can attempt to build a coalition to establish goals and priorities and use judgment or trial and error to solve problems. Additional techniques, such as inspiration and imitation, also may be required. Inspiration refers to an innovative, creative solution that is not reached by logical mean imitation means adopting a decision tried elsewhere in the hope that it will work in this situation.

For example, in one university, accounting department faculty was unhappy with their current circumstances but could not decide on the direction the department should take. Some faculty members wanted a greater research orientation, whereas other wanted greater orientation toward business firms and accounting applications. The disagreement about goals was compounded because neither group was sure about the best technique for achieving its goals. The ultimate solution was inspirational on the part of the dean. An accounting research center was established with funding from Big Five accounting firms. The funding was used to finance research activities for faculty interested in basic research and to provide contact with business firms for other faculty. The solution provided a common goal and unified people with in the department to work toward that goal.

When an entire organization is characterized by high uncertainty regarding both problems and solutions, as in e-corporations and learning organizations, elements of the garbage can model will appear. Managers may first try techniques from both cells 2 and 3, but logical decision sequences starting with problems identification and ending with problem solution will not occur. Potential solutions will precede problems as often as problems precede solutions. In this situation, managers should encourage widespread discussion of problems and idea proposals to facilitate the opportunity to make choices. Eventually, through trial and error, the organization will solve problems.

SPECIAL DECISION CIRCUMSTANCES
In a highly competitive world beset by global competition and rapid change, decision making seldom fits the traditional rational, analytical model. To cope in today's world, managers must learn to make decisions fast, especially in high velocity environments, to learn from decision mistakes, and to avoid escalating commitment to an unsatisfactory course of action.

HIGH – VELOCITY ENVIRONMENT
In some industries today, the rate of competitive and technological change is so extreme that market data is either unavailable or obsolete, strategic windows open and shut quickly, perhaps within a few months, and the cost of decision error is company failure. Recent research has examined how successful companies make decision in these high – velocity environment, especially to understand where organization abandon rational approaches or have time for incremental implementation.

Comparing successful with unsuccessful decision in high – velocity environments suggests the following guidelines.

•   Successful decision makers track information in real time to develop a deep and intuitive grasp of the business. Two to three intense meetings per week with all key players are usual. Decision makers track operating statistics about cash, scrap, backlog, work in process, and shipments to constantly feel the pulse of what is happening, unsuccessful firms were more concerned with future planning and forward – looking information, with only a loose grip on immediate happenings.

•   During a major decision, successful companies began immediately to build multiple alternatives, implantation may run in parallel before finally settling on a final choice. Slow – decision companies developed only a single alternative, moving to another only after the first one failed.

•   Fast, successful decision makers sought advice from everyone and depended heavily on one or two savvy, trusted colleagues as counselors. Slow companies were unable to build trust and agreement among the best people.

•   Fast companies involved everyone in the decision and tried for consensus; but if consensus did not emerge, the top manager made the choice and moved ahead. Waiting for everyone to be on board created more delays than warranted, slow companies delayed decision to achieve a uniform consensus.

•   Fast, successful choices were well integrated with other decisions and the overall strategic direction of the company. Less successful choices considered the decision in isolation from other decisions; the decision was made in the abstract.

When speed matters, a slow decision is as ineffective as the wrong decision. Speed is a crucial competitive weapon in growing number of industries, and companies can learn to make decisions fast. Managers must be plugged into

the pulse of the company, must seek consensus and advice, and then by ready to take the risk and move ahead. When Deborah Triant, CEO and president of Check Point Software Technologies, has to make a fast decision about a complex problem, she asks everyone she knows for an opinion, but then she trusts her intuition and experience to make the decision and move forward.

DECISION MISTAKES AND LEARNING

Organizational decisions produce many errors, especially when made under high uncertainty. Managers simply cannot determine or predict which alternative will solve a problem. In these cases, the organization must make the decision - and take the risk --- often in the spirit of trial and error. If an alternative fails, the organizational can learn from it and try another alternative that better fits the situation. Each failure provides new information and learning. The point for managers is to move ahead with the decision process despite the potential for mistakes. "Chaotic action is preferable to orderly inaction."

In many cases, managers have been encouraged to install a climate of experimentation, even foolishness, to facilitate creative decision making if on idea fails, anther ideas should be tried. Failure often lays the groundwork for success, as when technician at 3M developed Post – it Notes based on failed product --- a not – very – sticky glue. Companies such as PepsiCo believe that if all their new products succeed, they're doing s something wrong, not taking the necessary risks to develop new markets.

Only by making mistakes can managers and organizations go through the process of decision learning and acquire sufficient experience and knowledge to perform more effectively in the future. Robert Townsend, who was president at Avis Corporation, gives the following advice.

Admit your mistakes openly, maybe even joyfully. Encourage your associates to do likewise by commiserating with them. Never castigate. Babies learn to walk by failing down. If you beat a baby every time he falls down, he'll never care much for walking.

My batting average on decisions at Avis was no better than a 333. Two out of every three decision 1 made were wrong. But my mistakes were discussed openly and most of them corrected with a little help from my friends.

ESCALATING COMMITMENT

A much more dangerous mistake is to persist in a course of action when it is failing. Research suggests that organizations often continue to invest time and money in a solution despite strong evidence that it is not working. Two explanations are given for why manager escalate commitment to a failing decision. The first is that manager s block or distort negative information when they are personally responsible for a negative decision. They simply don't' know when to pull the plug. In some cases, they continue to throw good money after bad even when a strategy seems incorrect and goals are not being met. An example of this distortion is the reaction at Borden when the company began losing customers following its refusal to lower prices on dairy products. When the cost of raw milk dropped, Borden hoped to boost the profit margins of its dairy products, convinced that customer would pay a premium for the brand name. Borden's sales plummeted as low –priced competitor's mopped up, but top executives stuck with their premium pricing policy for almost a year, by then, the company's dairy division was operating at a serve loss.

As another example, consider the increasing investment of the Canadian imperial Bank of Commerce in the ill-fated Canary Wharf Project, an $8 billion development in London's remote Docklands area. CIBC had already lent over $ 1 billion for Canary Wharf to the now – failed Olympia & York Developments Ltd. and its subsidiaries. Despite loads of negative information that led CEO Al Flood to pronounce Canary Wharf a project that "would not meet our lending criteria today," CIBC turned around and invested an additional $ 36million in the project. Flood said the move was designed to "protect our investment… and try to make the project work," these additional millions now seem like a terrible choice.

A second explanation for escalating commitment to a failing decision is that consistency and persistence are valued in contemporary society. Consistent managers are considered better leaders than those who switch around from one course of action to another. Even though organizations learn through trial and error, organizational norms value consistency. These norms may result in a course of action being maintained, resources being squandered, and learning being inhibited. Emphasis on consistent leadership was partly responsible for the Long Island lighting Company's refusal to change course in the construction of Shoreham Nuclear Power Plant, which was eventually abandoned – after an investment of more than $ 5 billion --- without ever having begun operation Shoreham's cost was estimated at $ 75 million when the project was announced in 1966, but by the time a construction permit was

granted, LILCO had had already spent $ 77 million. Opposition to nuclear power was growing. Critics continued to decry the huge sums of money being pumped into Shoreham. Customers complained that LILCO was cutting back on customer service and maintenance of current operations. Shoreham officials, however, seemed convinced that they would triumph in the end; their responses to criticism were," if people will just wait until the end, they are going to realize that this is a hell of an investment."

The end came in 1989, when a negotiated agreement with New York led LILCO to abandon the $ 5.5 billion plant in return for rate increases and a $ 2.5 billion tax write-off. By the time remained firmly committed to a losing course of action for more than twenty – three years.

Failure to admit a mistake and adopt a new course of action is far worse than an attitude that encourages mistake and learning. Based on what has been said about decision making, one can expect companies to be ultimately successful in their decision making by adopting a learning approach toward solutions. They will make mistakes along the way. But they will resolve uncertainty through the trial – and – error process.

CONFLICT, POWER & POLITICS

WHAT IS INTER-GROUP CONFLICT?

Inter group conflict requires three ingredients; group identification, observable group differences, and frustration. First, employees have to perceive themselves as part of an identifiable group or department. Second, there has to be an observable group difference of some form. Groups may be located on different floors of the building, members may have gone to different school, or members may work in different departments. The ability to identify oneself as a part of one group and to observe differences in comparison with other groups is necessary for conflict.

The third ingredient is frustration. Frustration means that if one group achieves its goals, the other will not; it will be blocked. Frustration need not be server and only needs to be anticipated to set off inter-group conflict. Inter-group conflict will appear when one group tires to advance its position in relation to other groups. Inter- groups conflict can be defined as the behavior that occurs among organizational groups when participants identify with one group and perceive that other groups may block their group's goal achievement or expectations. Conflict means that groups clash directly, that they are in fundamental opposition. Conflict is similar to competition but more severe. Competition means rivalry among groups in the pursuit of a common prize, while conflict presumes direct interference with goal achievement.

Inter-group conflict within organization can occur horizontally – across departments – or vertically – between different levels of the organization. For example, the production department of a manufacturing company may have a dispute with quality control because new quality procedures reduce production efficiency. Teammates may argue about the best way to accomplish tasks and achieve goals. Workers may clash with bosses about new work methods, reward systems, or job assignments. Another typical source of conflict is between groups such as unions and management or franchise owners and headquarters. Franchise owners for McDonald's Taco Bell, Burger King, and KFC have clashed with headquarters because of the increase of company – owned stores in neighborhoods that compete directly with franchises. The FedEx pilots' union has fought with the company over wage increases, working hours, and control over scheduling. Conflict can also occur between different divisions or business units. For example, a conflict emerged between the two sides of Andersen Worldwide – Andersen Consulting (Management consulting) and Arthur Andersen (Accounting services) – because the two groups found themselves going after the same business.

WHY CONFLICT EXISTS

Some specific organizational characteristic can generate conflict. These sources of inter-group conflict are goal incompatibility, differentiation, task interdependence, and limited resources. These characteristics of organizational relationships are determined by the contextual factors of environment, size technology, strategy and goals and organizational structure, which have been discussed. These characteristics, in turn, help shape the extent to which a rational model of behavior versus a political model of behavior is used to accomplish objective.

Goal Incompatibility: Goal incompatibility is probably the greatest cause of inter-group conflict in organizations. The goals of each department reflect the specific objectives members are trying to achieve. The achievement of one department's goals often interferes with another department's goals University police, for example, have a goal of providing a safe and secure campus. They can achieve their goal by locking all buildings on evenings and weekends and not distributing keys. Without easy access to buildings, however, progress toward the science department's research goals will proceed slowly. On the other hand, if scientists come and go at all hours and security is ignored, police goals for security will not be met; Goal incompatibility throws the departments into conflict with each other.

The potential for conflict is perhaps greater between marketing and manufacturing than between other departments because the goals of these two departments are frequently at odds. Marketing strives to increase the breadth of the product line to meet customer tastes for variety. A broad product line means short production runs, so manufacturing has to bear higher costs. Other areas of goal conflict are quality, cost control, and new products. Goals incompatibility exists among departments in most organization.

Differentiation: Differentiation was defined as "the differences in cognitive and emotional orientations among managers in different functional departments." Functional specialization requires people with specific education skills, attitudes, and time horizons. For example, people may join a sales department because they have ability and aptitude consistent with sales work. After becoming members of the sales department, they are influenced by departmental norms and values.

Departments or division within an organization often differ in values, attitudes, and standards of behavior and these cultural differences lead to conflicts. Consider an encounter between a sales manager and an R&D scientist abuts a new product.

The sales manager may be outgoing and concerned with maintaining a warms, friendly relationship with the scientist. He may be put off because the scientist seems withdrawn and disinclined to talk about anything other than the problems in which he is interested. He may also be annoyed that the scientist seems to have such freedom in choosing what he will work on. Furthermore, the scientist is probably often late for appointment, which, from the salesman's point of view, is no way to run a business. Our scientist, for his part, may feel uncomfortable because the salesman seem to be pressing for immediate answers to technical questions that will take a long time to investigate. All the discomforts are concrete manifestations of relatively wide differences between these two men in respect to their working and thinking styles.

Cultural differences can be particularly acute in the case of mergers or acquisitions. Employees in the acquired company may have completely different work styles and attitudes, and a "we against them" attitude can develop. One reason for the failure of many mergers is that although managers can integrate financial and production technologies, they have difficulty integrating the unwritten norms and values that have an even greater impact on company success. The taking the lead box describes ho GE Plastics overcame cultural difference after acquiring rival Borg- Warner Chemicals.

Task interdependence: Task interdependence refers to the dependence of one unit on another for materials, resources, or information. As described, technology, pooled interdependence means little interaction, sequential interdependence means the output of one department goes to the next department; and reciprocal interdependence means department mutually exchange materials and information.

Generally, as interdependence increases, the potential for conflict increase. In the case of pooled interdependence, units have little need to interact. Conflict is at a minimum. Sequential and reciprocal interdependence require employees to spend time coordinating and sharing information. Employees must communicate frequently, and differences in goals or attitudes will surface. Conflict is especially likely to occur when agreement is not reached about the coordination of services to each other. Greater interdependence means departments often exert pressure for a fast response because departmental work has to wait on other departments.

Limited Resources: Another major source of conflict involves competition between groups for what members perceive as limited resources. Organizations have limited money, physical facilities, staff resources, and human resources to share among department. In their desire to achieve goals, groups want to increase their resources. This throws them into conflict. Managers may develop strategies, such as inflating budget requirements or working behind the scenes, to obtain a desired level of resources. Resources also symbolize power and influence within an organization. The ability to obtain resources enhances prestige. Departments typically believe they have a legitimate claim on additional resources. However, exercising that claim results in conflict. For example, in almost every organization, conflict occurs during the annual budget exercise, often creating political activity.

RATIONAL VERSUS POLITICAL MODEL:
The sources of inter-group conflict are listed in previously the degree of gal incompatibility, differentiation, interdependence, and conflict over limited resources determines whether a rational or political model of behavior is used within the organization to accomplish goals. When goals are in alignment, there is little differentiation, department are characterized by pooled interdependence, and resources seem abundant, managers can use a rational model of organization, as outlined. as with the rational approach to decision making described earlier, the rational model of organization is an "ideal" that is not fully achievable in the real world, though managers strive to use rational processes whenever possible. In the rational organization, behavior is not random or accidental. Goals are clear and choices are made in a logical way. When a decision is needed, the goal is defined, alternatives are identified, and the choice with the highest probability of success is selected. The rational model is also characterized by centralized power and control, extensive information systems, and an efficiency orientation. The opposite view of organizational processes is the political model, also described. When differences are great, organization groups have separate interests, goals and values. Disagreement and conflict are normal, so power and influence are needed to reach decision. Groups will engage in the push and pull of debate to decide goals and reach decisions. Information is ambiguous and incomplete. The political model particularly describes organizations that strive for democracy and participation in decision making by empowering workers .Purely rational procedure do not work in democratic organizations, such as learning organizations.

Both rational and political processes are normally used in organizations. In most organizations, neither the rational model nor the political model characterizes things fully, but each will be used some of the time. Mangers may strive to adopt rational procedures but will find that politics is needed to accomplish objective. The political model means managers learn to acquire, develop, and use power to accomplish objectives.

INDIVIDUAL VERSUS ORGANIZATIONAL POWER

In popular literature, power is often described as a personal characteristic, and a frequent topic is how one person can influence or dominate another person. You probably recall from an earlier management or organizational behavior course that mangers have five sources of personal power. Legitimate power is the authority granted by the organization to the formal management position a manger holds. Reward power stems from the ability to bestow rewards – promotion, raise, pat on the back – to other people. The authority to punish or recommend punishment is called coercive power. Expert power derives from a person's higher skill or knowledge about the tasks being performed. The last one, referent power, derives from personal characteristics such that people admire the manager and want to be like or identify with the manger out of respect and admiration. Each of these sources may be used by individuals within organization.

Power in organizations, however, is often the result of structural characteristics. Organizations are large, complex systems that contain hundreds, even thousands, of people. These systems have a formal hierarchy in which some tasks are more important regardless of who performs them. In addition, some positions have access to greater resources, or their contribution to the organization is more critical. Thus, the important power processes in organizations reflect larger organizational relationships. Both horizontal and vertical, and organizational power usually is vested in the position, not in the person.

POWER VERSUS AUTHORITY
Power is an intangible force in organization. It cannot be seen, but its effect can be felt. Power is often defined as the potential ability of one person (or department) to influence other persons (or departments) to carry out orders – or to do something they would not otherwise have done. Other definitions stress that power is the ability to achieve goals or outcome that power holder's desire. The achievement of desired outcomes is the basis of the definition used here. Power is the ability of one person or department, in an organization to influence other people to bring about desired outcomes. It is the potential to influence others within the organization but with the goal of attaining desired outcome for power holders. Book Mark 12.0 offers some guidelines for increasing your power and ability to influence others.

Power exists only in a relationship between two or more people, and it can be exercised in either vertical or horizontal directions. The source of power often derives from an exchange relationship in which one position or department provides scare or valued resources to other department. When one person I dependent on another person, a power relationship emerges in which person with the resources had greater power. When power exists in a relationship, the power holders can achieve compliance with their requests. For example, the following outcomes are indicators of power in an organization:

- Obtain a larger increase in budget than other departments.
- Obtain above – average salary increases for subordinates.
- Obtain production schedules that are favorable to your department.
- Get items on the agenda at policy meetings.

People throughout the organization can exercise power to achieve desired outcomes. Back in 1994, when the Discovery channel wanted to extend its brand beyond cable television, Tom Hicks began pushing for a focus on the emerging internet, even though Discovery's CEO favored exploring interactive television. Hicks organized a campaign that eventually persuaded the CEO to focus instead on Web publishing, indicating that Hicks had power within the organization. Today, Hicks runs Discovery Channel Online. The key to success, he says, is "to consider your personal ambitions separately from your strategic goals for the company."

The concept of formal authority is related to power but is narrower in scope. Authority is also a force for achieving desired outcomes, but only as prescribed by the formal hierarchy and reporting relationships. Three properties identify authority;

1. Authority is vested in organizational position. People have authority because of the position they hold, not because of personal characteristic or resources.
2. Authority is accepted by subordinates. Subordinates comply because they believe position holders have a legitimate right so exercise authority. Even though Jim Hear and Gregg Trueman founded Buoyant Company and served as CEO and president respectively, they learned that employees did not accept their authority to make critical decision. Staff members were aligned with three top managers who had been hired to handle the day – to –

day hands on work of the company. Staffers accepted the authority of these managers because they worked with them on a daily basis; therefore, they supported the managers' decisions over those of the two co – owners.

3.   Authority flows down the vertical hierarchy. Authority exists along the formal chain of command, and positions at the top of the hierarchy are vested with more formal authority than are positions at the bottom.

Organizational power can be exercised upward, downward, and horizontally in organizations. Formal authority is exercised downward along the hierarchy and is the same as vertical power and legitimate power. In the following sections, we will examine vertical and horizontal sources of power for employees throughout the organization.

VERTICAL SOURCES OF POWER

All employees along the vertical hierarchy have access to some sources of power. Although a large amount of power is typically allocated to top managers by the organization structure, employees throughout the organizations often obtain power disproportionate to their formal positions and can exert influence in an upward direction. There are four major sources of vertical power; formal positions, resources, control of decision premises, and network centrality.

Formal Position: Certain rights, responsibilities, and prerogatives accrue to top positions. People throughout the organization accept the legitimate right of top managers to set goals, make decision, and direct activities, thus, the power from formal positions is sometimes called legitimate power. Senior managers often use symbols and language to perpetuate their legitimate power. For example, Adam Schiff, administrator of Pacific Medical Center, described in the opening case, symbolized his formal power by issuing a newsletter with his photo on the cover and airing a 24 – hours – a – day video in the rooms to welcome patients and announce that "we don't waste dollars."

The amount of power provided to middle managers and lower-level participants can be built into the organization's structural design. The allocation of power to middle managers and staff if important because power enables employees to be productive. When job tasks are non-routine, and when employees participate in self directed teams and problem – solving task forces, this encourage employees to be flexible and creative and to sue their own discretion. Allowing people to make their own decisions increases their power. Power is also increased when a position encourages contact with high – level people. Access to powerful people and the development of a relationship with them provide a strong base of influence. For example, in some organizations a secretary to the vice – president has more power than a department head because the secretary has access to the senior executive on a daily basis.

The logic of designing positions for more power assumes that an organization does not have a limited amount of power to be allocated among high – level and low – level employees. The total amount of power in an organization can be increased by designing tasks and interactions along the hierarchy so everyone has more influence. If the distribution of power is skewed too heavily toward the top, research suggests the organization will be less effective.

Resources: Organizations allocate huge amounts of resources. Buildings are constructed, salaries are paid, and equipment and supplies are purchased. Each year, new resources are allocated in the forth of budgets. These resources are allocated downward from top managers. Top managers often own stock, which gives them property rights over resource allocation. However, in many of today's organizations, employees throughout the organization also share in ownership, which increases their power. At St. Luke's, a London advertising agency, the company is owned entirely by its employees from the CEO down to the janitors.

In most cases, top managers control the resources and hence can determine their distribution. Resources can be used as rewards and punishments, which are also sources of power; resource allocation also creates a dependency relationship. Lower- level participants depend on top managers for the financial and physical resources needed to perform their tasks. Top management can exchange resources in the form of salaries, personnel, promotion, and physical facilities for compliance with the outcomes they desire.

Control of Decision Premises and information: Control of decision premises means that top managers place constraints on decision made at lower levels by specifying a decision frame of reference and guidelines. In one sense, top mangers make big decisions; whereas lower-level participants make small decisions. Top management decides which goal an organization will try to achieve, such as increased market share. Lower – level participants then decide how the goal is to be reached. In one company, top management appointed a committee to select a new marketing vice president. The CEO provided the committee with detailed qualifications that the new vice president should have. He also selected people to serve on the committee. In this way, the CEO shaped the decision premises within which the marketing vice president would be chosen. Top manager actions and decision such as these place limits on the decisions of lower – level managers and thereby influence the outcome of their decisions.

The control of information can also be a source of power. Managers in today's organizations recognize that information is a primary business resource and that by controlling what information is collected, how it is interpreted, and how it is shared, they can influence how decisions are made. In many of today's companies, especially in learning organization, information is openly and broadly shared, which increases the power of people throughout the organization.

However, top managers generally have access to more information than do other employees. This information can be released as needed to shape the decision outcomes of other people. In one organizations, Clark, Ltd.., the senior manager controlled information given to the board of directors and thereby influenced the board's decision to purchase a large computer system. The board of directors had formal authority to decide from which company the computer would be purchased. The management services group was asked to recommend which of six computer manufactures should receive the order. Jim Kenny was in charge of the management services group, and Kenny disagreed with other managers about which computer to purchase. Kenny shaped the board's thinking to select the computer he preferred by controlling information given to them.

Middle managers and lower – level employees may also access to information that can increase their power. A secretary to a senor executive can often control information that other people want and will thus be able to influence those people, top executives also depend on people throughout the organization for information about problems or opportunities. Middle managers or lower – level employees may manipulate the information they provide to top managers in order to influence decision outcomes.

Network Centrality: Network Centrality means bring centrally located in the organization and having access to information and people that are critical to the company's success. To executives often increase their power by surrounding themselves with a network of loyal subordinates and using the network to learn about events throughout the organization. They can use their central positions to build alliances and wield substantial power in the organization.

Middle managers and lower – level employees have more power when their jobs are related to current areas of concern on opportunity. When a job pertains to pressing cognitional problems, power is more easily accumulated. David Shoenfeld, who is now senior vice – president for world – wide marketing, customer service, and corporate communications, at FedEx, increased his power by being central to solving an organizational problem. When pilots threatened to go on strike, Shoenfeld believed the best approach was to warn customers up front on the company's Web site. The strike that had crippled archrival UPS had warned FedEx manager about the dangers of letting customer be caught by surprise, Shoenfeld idea of openly sharing information with customer on a regular basis through a daily " Pilot Negotiation Update" Helped FedEx maintain the trust of its customers. Lower level employees may also increase their network centrality by becoming knowledgeable and expert about certain activities or by taking on difficult tasks and acquiring specialized knowledge that makes them indispensable to managers above them. People who show initiative, work beyond what is expected, take on undesirable but important projects, and show interest in leaning about the company and industry often find themselves with influence. Physical location also helps because some locations are in the center of things. Central location lets a person be visible to key people and become part of important interaction networks.

When she took a job as manager of employee communications at Xerox, Cindy Casselman used the idea of network centrality to increase her power and accomplish a goal.

On Xerox Teamwork Day, Xerox Chairman and CEO Paul Allaire Proudly described the company the company's newest internal communications tool- the Web Board. Today, thanks to Casselman and the SCO team, 85,000 Xerox employees can visit this lively intranet site to read up –to-the – minute news about internal developments, talk with other workers. And generally stay connected with what's going on in the company. Casselman herself has been promoted to executive assistant to the head of corporate research and technology. " the Web Board raised my profile and proved that I could follow though on an ambitious project and form the relationship needed to support the project," Casselman says "it definitely helped me win my new job,"

Even though Cindy Casselman had little formal power and authority, she surrounded herself with a network of people who supported her idea for a company intranet. Casselman developed sufficient network centrality to accomplish her goal.

HORIZONTAL SOURCES OF POWER

Horizontal power pertains to relationships across departments. All vice – president are usually at the same level on the organization chart. Does this mean each department has the same amount of power? No, Horizontal power is not defined by the formal hierarchy or the organization chart. Each department makes a unique contribution to organizational success. Some departments will have greater say and will achieve their desired outcomes, whereas others will not. For example, Charles Perrow surveyed managers in several industrial firms. He bluntly asked, "Which department has the most power? Among four major departments; productions, sales and marketing, research and development, and fiancé and accounting. On average, the sales and production departments were more powerful than R&D and fiancé, although substantial variation existed. Differences in the amount of horizontal power clearly occurred in those firms. Today, e-commerce departments and information services departments have growing power in many organizations.

Horizontal power is difficult to measure because power differences are not defined on the organization chart. However, some initial explanations for departmental power differences, such as those shown below, have been found. The Theoretical concept that explains relative power is called strategic contingencies.

STRATEGIC CONTINGENCIES

Strategic contingencies are events and activities both inside and outside an organization that are essential for attaining organizational goals. Departments involved with strategic contingencies for the organization tends to have greater power, Departmental activities are important when they provide strategic value by solving problems or crises for the organization. For example, if an organization faces an intense threat from lawsuits and regulations, the legal department will gain power and influence over organizational decisions because it copes with such a threat. If product innovation is the key strategic issue, the power of R&D can be expected to be high.

The strategic contingency approach to power is similar to the resource dependence model, organizations try to reduce dependency on the external environment. The strategic contingency approach to power suggests that the departments most responsible for dealing with key resources issues and dependencies in the environment will become most powerful.

POWER SOURCES

Jeffrey Pfeiffer and Gerald Salancik, among others, have been instrumental in conducting research on the strategic contingency theory. Their findings indicate that a department rated as powerful may posses one or more of the characteristics.

Dependency: Interdepartmental dependency is a key element underlying relative power. Power is derived from having something someone else wants. The power of department A over department B is greater when department B depends on A.

Many dependencies exist in organizations. Materials, information, and resources may flow between departments in one direction, such as in the case of sequential task interdependence. In such cases, the department receiving resources is in a lower power position than the department providing them. The number and strength of dependencies are also important. When seven or eight departments must come for help to the engineering department, for example, engineering is in a strong power position. In contrast, a department that depends on many other departments is in a low power position.

In a cigarette factory, one might expect that the production department would be more powerful than the maintenance department, but this was not the case in a cigarette plant near Paris. The production of cigarettes was a routine process. The machinery was automated and production jobs were small in scope. Production workers were not highly skilled and were paid on a piece – rate basis to encourage high production. On the other hand, the maintenance department required skilled workers. These workers were responsible for repair of the automated machinery, which was a complex task. They had many years of experience. Maintenance was a craft because vital knowledge to fix machines was stored in the minds of maintenance personnel.

Dependency between the two groups was caused by unpredictable assembly line breakdowns. Managers could not remove the breakdown problem; consequently, maintenance was the vital cog in the production process. Maintenance workers had the knowledge and ability to fix the machines, so production managers became dependent on them. The reason for this dependence was that maintenance managers had control over a strategic contingency – they had the knowledge and ability to prevent or resolve work stoppages.

Financial Resources. There's a new golden rule in the business world; "the person with the gold makes the rules," Control over various kinds of resources, and particularly financial resources, is an important source of power in organizations. Money can be converted into other kinds of resources that are needed by other departments. Money generates dependency; departments that provide financial resources have something other departments want. Departments that generate income for organizations have greater power. The survey of industrial firms reported in above. Showed sales as the most powerful unit in most of those firms. Sales had power because salespeople find customers and sell the product, thereby removing an important problem for the organization. The sales department ensures the inflow of money. An ability to provide financial resources also explains why certain departments are powerful in other organizations, such as universities.

As shown in the example of the University of Illinois, power accrues to departments that bring in or provide resources that are highly values by an organization. Power enables those departments to obtain more of the scarce resources allocated within the organization. "Power derived from acquiring resources is used to obtain more resources, which in turn can be employed to produce more power – the rich get richer,"

Centrality: Centrality reflects a department's role in the primary activity of an organization. One measure o centrality is the extent to which the work of the department affects the final output of the organization. For example, the production department is more central and usually has more power than staff groups. (Assuming no other critical contingencies) Centrality is associated with power because it reflects the contribution made to the organization. The corporate finance department of an investment bank generally has more power than the stock research department. Finance tends to be low in power. When the finance department has the limited task of recording money and expenditure, it is no responsible for obtaining critical resources or for producing the products of the organization.

Non-Substitutability: Power is also determined by non- substitutability. Which means that a department's function cannot be performed by other readily available resources? Non-substitutability increases power. If an employee cannot be easily replaced, his or her power is greater. If an organization has no alternative sources of skill and information, a department's power will be greater. This can be the case when management uses outside consultants. Consultants might be used as substitutes for staff people to reduce the power of staff groups.

The impact of substitutability on power was studied for programmers in computer departments. When computer were first introduced, programming was a rare and specialized occupation. People had to be highly qualified to enter the profession. Programmers controlled the use of organizational computers because they alone possessed the knowledge to program them. Over a period of about ten years, Computer programming became a more common activity People could be substituted easily, and the power of programming departments dropped.

The power of computer programming department increased again as organizations battled the "Y2K problems," most large corporations use computer systems that were programmed thirty years ago to deal only in two – digit dates, which convert the year 2000 into 00, throwing the entire system out of whack, the complex conversion process had to be done manually, and programmers with the skills to handle the conversion became highly prized.

Coping with Uncertainty: The discussion on environment and decision making described how elements in the environment can change swiftly and can be unpredictable and complex. In the face of uncertainty, little information is available to managers on appropriate courses of action. Departments that cope with this uncertainty will increase their power. Just the presence of uncertainty does not provide power; reducing the uncertainty on behalf of other departments will. When market research personnel accurately predict changes in demand for new products, they gain power and prestige because they have reduced a critical uncertainty. Forecasting is only one technique for coping with uncertainty. Sometimes uncertainty can be reduced by taking quick and appropriate action after an unpredictable event occurs.

These techniques that department can use to cope with critical uncertainties are (1) obtaining prior information, (2) prevention, and (3) absorption. Obtaining prior information means a department can reduce an organization's uncertainty by forecasting an event. Departments increase their power though prevention by predicting and forestalling negative events. Absorption occurs when a department takes action after an event to reduce its negative consequences. In the following case, the industrial relations department increased it power by absorbing a critical uncertainty. It took action after the event to reduce uncertainty for the organization.

In Crystal Manufacturing Company, the industrial relations unit coped with the critical uncertainty by absorption. It took action to reduce the uncertainty after it appeared. This action gave the unit increased power.

Horizontal power relationship in organizations change as strategic contingencies change. For example, in recent years, giant retailers such as Wall- Mart and Winn-Dixie have increased their power over magazine publishers by refusing to sell issues that contain cover photos or stories that might be objectionable to some customers. Some Magazine publishers have agreed to provide advance copies so retailers can spot controversial material ahead and decline the issue." If you don't let them know in advance," one circulation director said," they will delist the title and never carry it again." These demands from powerful retailers are creating new uncertainties and strategic issues for magazine publishers such as Hearst Corp., Miller Publishing Group, and Time Warner, which has to far refuse to provide preview copies.

POLITICAL PROCESSES IN ORGANIZATIONS

Politics, like power, is intangible and difficult to measure. It is hidden from view and is hard to observe in a systematic way. Two recent surveys uncovered the following reactions of managers toward political behavior.

1.   Most managers have a negative view toward politics and believe that politics will more often hurt than help an organization in achieving its goals.
2.   Managers believe political behavior occurs more often at upper rather than lower level in organizations.
3.   Most manages think political behavior occurs more often at upper rather than lower levels in organizations.
4.   Political behavior arises in certain decision domains, such as structural change. But is absent from other decision, such as handling employee grievances.

Based on these surveys, politics seems more likely to occur at the top levels of an organization and around certain issues and decisions. Moreover, managers do not approve of political behavior.

DEFINITION
Power has been described as the available force or potential for achieving desired outcomes. Politics is the use of power to influence decisions in order to achieve those outcomes. The exercise of power and influence has led to two ways to define politics –as self – serving behavior or as a natural organizational decision process. The first definition emphasizes that politics is self – serving and involves activities that are not sanctioned by the organization.

In this view, politics involves deception and dishonesty for purposes of individual self – interest and leads to conflict and disharmony within the work environment. This dark view of politics is widely held by laypeople. Recent studies have shown that workers who perceive this kind of political activity at work within their companies often have related feelings of anxiety and job dissatisfaction. Studies also support the belief that inappropriate use of politics is related to low employee morale, inferior organizational performance, and poor decision making. This view of politics explains why mangers in the surveys described above did not approve of political behavior.

Although politics can be used in a negative, self – serving way, the appropriate use of political behavior can serve organizational goals. The second view sees politics as a natural organizational process for resolving differences among organizational interest groups. Politics is the process of bargaining and negotiation that is used to overcome conflicts and differences of opinion. In this view, politics is very similar to the coalition – building decision processes.

The organization theory perspective views politics as described in the second definition as a normal decision-making process. Politics is simply the activity through which power is exercised in the resolution of conflicts and uncertainty. Politics is neutral and is not necessarily harmful to the organization. The formal definition of organizational political is as follows; organizational politics involves activities to acquire, develop, and use power and other resources to obtain the preferred outcome when there is uncertainty or disagreement about choices.

Political behavior can be either a positive or a negative force. Politics is the use of power to get things accomplished – good things as well as bad. Uncertainty and conflict are natural and inevitable, and politics is the mechanism for reaching agreement. Politics includes informal discussions that enable participants to arrive at consensus and make decisions that otherwise might be stalemated or unsolvable.

WHEN IS POLITICAL ACTIVITY USED?
Politics is a mechanism for arriving at consensus when uncertainty is high and there is disagreement over goals or problem priorities. The political model is associated with conflict over goals, shifting coalitions and interest groups, ambiguous information, and uncertainty. Thus, political activity tends to be most visible when managers confront non-programmed decision and is related to the Carnegie model of decision making. Because managers at the top of an organization generally deal with more non-programmed decision than do mangers at lower levels, more political activity will appear. Moreover, some issues are associated with inherent disagreement. Resources, for example, are critical for the survival and effectiveness of departments, so resource allocation often becomes a political issue, "Rational methods of allocation do not satisfy participants. Three domain of political activity (areas in which politics plays a role) in most organizations are structural change, management succession, and resources allocation.

Structural re-organizations strike at the heart of power and authority relationship, Re-organizations such as change responsibilities and tasks, which also affects the underlying power base from strategic contingencies. For these reasons, a major reorganization can lead to an explosion of political activity. Managers may actively bargain and negotiate to maintain the responsibilities and power bases they have.

Organizational changes such as hiring new executives, promotions, and transfers have great political significance, particularly at top organizational levels where uncertainty is high and networks of trusts, cooperation, and communication among executives are important. Hiring decision can generate uncertainty, discussion, and disagreement. Managers can use hiring and promotion to strengthen network alliances and coalitions by putting their own people in prominent positions.

The third area of political activity is resource allocation. Resource allocation decision encompass all resources required for organizational performance, including salaries, operating budgets, employees, office facilities, equipment, use of the company airplane, and so forth. Resources are so vital that disagreement about priorities exists, and political processes help resolve the dilemmas.

USING POWER, POLITICS, AND COLLABORATION

Power in organizations is not primarily a phenomenon of the individual. It is related to the resources departments' command, the role departments play in an organization, and the environmental contingencies with which departments cope. Position and responsibility more than personality and style determine a manager's influence on outcomes in the organization.

Power is used though individual political behavior, however individual managers seek agreement about a strategy to achieve their departments' desired outcomes. Individual managers negotiate decision and adopt tactics that enables them to acquire and use power. In addition, managers develop ways to increase cooperation and collaboration within the organization to reduce damaging conflicts.

To fully understand the use of power within organizations, it is important to look at both structural components and individual behavior. Although the power comes from larger organizational forms and processes, the political use of power involves individual-level activities. This section briefly summarizes tactics that mangers can use to increase the power base of their departments, political collaboration.

TACTICS FOR INCREASING POWER

Four tactics for increasing power are as follows:

Enter areas of high uncertainty: One source of department power is to cope with critical uncertainties. If department mangers can identify key uncertainties and take steps to remove those uncertainties, the department's power base will be enhanced. Uncertainties could arise from stoppages on an assembly line, from the needed quality of a new product, or from the inability to predict a demand for new services, once an uncertainty is identified, the department can take action to cope with it. By their very nature, uncertain tasks will not be solved immediately. Trial and error will be needed, which is to the advantage of the department, the trial – and error process provides experience and expertise that cannot easily be duplicated by other departments.

1.   Create dependencies. Dependencies are another source of power. When the organization depends on a department for information, materials, knowledge, or skills, that department will hold power over the others. This power can be increased by incurring obligations. Doing additional work that helps out other departments will obligate the other departments to respond at a future date. The power accumulated by crating a dependency can be used to resolve future disagreements in the department's favor. An equally effective and related strategy is to reduce dependency on other departments by acquiring necessary information or skills, for example, information technology departments have created dependencies in much organization because of the rapid changes in this area. Employees in other departments depend on the information technology unit to master complex software programs, changing use of the internet, and other advances so that they will have the information they need to perform effectively.

2.   Provide resources. Resources are always important to organizational survival. Departments that accumulate resources and provide them to an organization in the form of money, information, or facilities will be powerful. For example, in Practice 12.2. Described how university departments with the greatest power are those that obtain external research funds for contributions to university overhead. Likewise, sales departments are powerful in industrial firms because they bring in financial resources.

3.   Satisfy strategic Contingencies. The theory of strategic contingencies says that some elements in the external environment and within the organization are especially important for organizational success. A contingency could be a critical event, a task for which there are no substitutes, or a central task that is inter-dependent with many others in the organization. An analysis of the organization and its changing environment will reveal strategic contingencies. To the extent that contingencies are new or are not being satisfied, there is room for a department to move into those critical areas and increase its importance and power.

In summary, the allocation of power in an organization is not random. Power is the result of organizational processes that can be understood and predicted. The abilities to reduce uncertainty, increase dependency on one's own department, obtain resources, and cope with strategic contingencies will all enhance a department's power. Once is available, the next challenge is to use it to attain helpful outcomes.

POLITICAL TACTICS FOR USING POWER
The use of power in organizations requires both skill and willingness. Many decisions are made through political processes because rational decision processes do not fit. Uncertainty or disagreement is too high. Political tactics for using power to influence decision outcomes include the following.

1.   **Build coalitions.** Coalition building means taking the time to talk with other managers to persuade them to your point of view. Most important decisions are made outside formal meetings. Managers discuss issues with each other and reach agreements on a one – to – one basis. Effective managers are those who huddle, meeting in groups of twos and threes to resolve key issues. An important aspect of coalition building is to build good relationships. An important aspect of coalitions building is to build good relationships. Good interpersonal relationships are built on liking, trust, and respect. Reliability and the motivation to work with others rather than exploit other are part of coalition building.

2. **Expand networks.** Networks can be expanded (1) by reaching out to establish contact with additional managers and (2) by co-opting dissenters. The first approach is to build new alliances through the hiring, transfer, and promotion process. Placing in key positions people who are sympathetic to the outcomes of the department can help achieve departmental goals. On the other hand, the second approach, co-optation, is the act of brining a dissenter into one's network. One example of co-optation involved a university committee whose membership was based on promotion and tenure. Several female professor who were critical of the tenure and promotion process, were appointed to the committee. Once a part of the administrative process, they could see the administrative point of view and learned that administrators were not as evil as suspected. Co-optation effectively brought them into the administrative network.

3.   **Control Decision premises.** To control decision premises means to constrain the boundaries of a decision. One technique is to choose or limit information provided to other mangers. A common method is simply to put your department's best foot forward, such as selectively resenting favorable criteria. A variety of statistics can be assembled to support the departmental point of view. A university department that is growing rapidly and has a large number of students can make claims for additional resources by emphasizing its growth and large size. Such objective criteria do not always work, but they are a valuable step.
Decision premises can be further influenced by limiting the decision process. Decisions can be influenced by the items put on agendas for an important meeting or even by the sequence in which items are discussed. Item discussed last, when time is short and people want to leave, will receive less attention than those discussed early, Calling attention to specific problems and suggesting alternatives also will affect outcomes. Stressing a specific problem to get it rather than problems not relevant to your department on the agenda is an example of agenda setting.

4. **Enhance legitimacy and expertise.** Managers can exert the greatest influence in areas in which they have recognized legitimacy and expertise. If a request is within the task domain of a department and is consistent with the department's versed interest, other departments will tend to comply. Members can also identify external consultants or other experts within the organization to support their cause. For example, a financial vie-president in a large retail firm wanted to fire the director of human resource management. She hired a consultant to evaluate the human resource management projects undertaken to date. A negative report from the consultant provided sufficient legitimacy to fire the director, who was replaced with a director loyal to the financial vice – president.
5. **Make preferences explicit, but keep power implicit.** If managers do not ask, they seldom receive; Political activity is effective only when goals and needs are made explicit so the organization can respond. Managers should bargain aggressively and be persuasive. An assertive proposal may be accepted because other managers have no better alternative. Moreover, an explicit proposal will often receive favorable treatment because other alternatives

are ambiguous and less well defined. Effective political behavior requires sufficient forcefulness and risk taking to at least try to achieve desired outcomes.

The use of power, however, should not be obvious. If one formally draws, upon his or her power base in a meeting by saying, "my department has more power, so the rest of you have to do it may," the power will be diminished. Power works best when it is used quietly. To call attention to power is to lose it. Explicit claims for power are made by the power less, not by the powerful. People know who has power. There is substantial agreement on which departments re more powerful. Explicit claims to power are not necessary and can even harm the department's cause.

When using any of the preceding tactics, recall that most people feel self serving behavior hurts rather than help an organization, if managers are perceived to be throwing their weight around or are perceived to be after things that are self – serving rather than beneficial to the organization, they will lose respect, on the other hand, managers must recognize the relational and political aspect of their work. It is not sufficient to be rational and technically competent. Politics is a way to reach agreement. When managers ignore political tactics, they may find themselves failing without understanding why. This happened to Jeff Glover, a new manager with a firm in California's Silicon Valley.

A few weeks later, Glover learned from a friend that the sales manager had immediately disliked Glover idea when it was proposed. He didn't want his people to develop new knowledge about hospitals and medical purchasing practices. He had gotten one of his people to develop pessimistic numbers about market potential and had suggested to top management that time not be wasted on Glover's project.

Glover's problem was that he naively assumed the logic and technical merits of his proposed machine would carry the day. He ignored political relationships, especially with the sales manager. He did not take the time to build a network of support for the project among key managers. He should have devoted more time to building a collation and enhancing the legitimacy of his proposal, perhaps with his own market research.

TACTICS FOR ENHANCING COLLABORATION
Power and political tactics are important means for getting things done within organizations. Most organizations today have at least moderate inter-unit conflict. An additional approach in many organizations is to overcome conflict by simulating cooperation and collaboration among departments to support the attainment of organizational goals. Tactics for enhancing collaboration include the following;

1. **Create integration devices:** Task forces, and project managers who span the boundaries between departments can be used as integration devices. Bringing together representatives from conflicting departments in joint problem-solving teams is an effective way to enhance collaboration because representatives learn to understand each other's point of view. Sometimes a full – time integrator is assigned to achieve cooperation and collaboration by meeting with members of the respective departments and exchanging information. The integrator has to understand each group's problems and must be able to move both groups toward a solution that is mutually acceptable.

As an outgrowth of teams and task forces, many organizations today are restricting into permanent multidisciplinary, self – directed Work teams focused on horizontal process rather than function. At Saturn Corporations, teams of about fifteen employees handle everything from production schedules and new car quality to budgeting and hiring new workers. Teams and task forces reduce conflict and enhance cooperation because they integrate people from different reduce conflict and enhance cooperation because they integrate people from different departments, integration devices can be also be used to enhance cooperation between labor and management, as the example, of Aluminum Company of America and the International Association of Machinists illustrates.

Aluminum Company of America / International of Machinists
When representative from the international Association of Machinists (IAM) approached David Groetsch, President of a division of Aluminum Company of America (Alcoa) and offered to help create a new work system. Groetsch immediately agreed to give it a try. Alcoa managers joined union leaders for a week-long course at the union's school in Maryland. Where they learned how to set up a labor – management partnership and spur productivity working together labor and management studied everything from the history of high performance systems to new accounting methods to help measure them. Following the course the union sent experts free for charge to help union leaders and managers from manufacturing to making create teams and joint decision – making councils.

The IAM is at the forefront of revolutionary change in the relationship between labor and management. After decades of suspicion about company – sponsored teams many unions are now actively embracing the concept of partnership. According to Groetsch relationship on the shop floor at Alcoa have improved because each side better understands the other's concerns. "The days of 1950s style table –banging aren't gone yet," says laborers" President Arthur C. Cola. Whose union is also involved in cooperative ventures? However, the use of integration devices is dramatically improving cooperative relationships between labor and management.

Labor-management teams, which are designed to increase worker participation and provide a cooperative model for union-management problems, are increasingly being used at companies such as Goodyear, Ford Motor Company, and Xerox, in the steel industry, companies such as USX and Wheeling – Pittsburgh Steel Corp. have signed pacts that give union representatives seats on the board. Although unions continue to battle over traditional issues such as wages, these integration devices are creating a level of cooperation that many managers would not have believed possible just a few years ago.

2. **Use conformations and negotiation:** Confrontation occurs when parties in conflict directly engage one another and try to work out their differences. Negotiation is the bargaining process that often occurs during confrontations and that enables the parties to systematically reach a solution. These techniques bring appointed representatives from the departments together to work out a serious dispute.

Confrontation and negotiation involve some risk. There is no guarantee that discussions will focus on a conflict or that emotions will not get out of hand. However, if members are able to resolve the conflict on the basis of face-to-face discussions, they will find new respect for each other, and future collaboration becomes easier. The beginnings of relatively permanent attitude change are possible through direct negotiations.

For example, one technique used by companies is to have each department had meet face – to – face once a month with each of the other department heads and list what he or she expects from that department. After discussion and negotiation, department heads sign off on their commitment to perform the services on the list. The regular contact develops managers' skills as well as their desire to work out conflicts and solve problems among themselves.

Confrontation is successful when managers engage in a "win- win" strategy. Win-win means both departments adopt a positive attitude and strive to resolve the conflict in a way that will benefit each other. Ron Shapiro and Mark Janknowski, who negotiate deals for star athletes, suggest that each side should clearly identify, in descending order of importance, what it truly wants out of the negotiation and then try to do the same thing for the other side. Eventually determining how the two side's interests mesh. If the negotiations deteriorate into a strictly win –lose strategy (each group wants to defeat the other), the confrontation will be ineffective. Top management can urge group members to work toward mutually acceptable outcomes. One type of negotiation used to resolve a disagreement between workers and management is referred to as collective bargaining. The bargaining process is usually accomplished through a union and results in an agreement that specifies each party's responsibilities for the next two to three years. Union management negotiations are currently underway at several major U.S airlines, including US Airways, TWA, Northwest, Delta, and United.

3. **Schedule inter-group consultation:** When conflict is intense and enduring, and department members are suspicious and uncooperative, managers can bring in a third party consultant to work with the groups. This process, sometimes called workplace mediation, is a strong intervention to reduce conflict because it involves brining the disputing parties together and allowing each side to present its version of "reality." The technique has been developed by such psychologists as Robert Blake, Jane Mouton, and Richard Walton.

Department members attend a workshop, which may last for several days, away from day to day work problems. This approach is similar to the OD approach. The steps typically associated with an inter –group training session are as follows;

a.   The conflicting groups are brought into a training setting with the stated goals of exploring mutual perceptions and relationship.
b.   The conflicting groups are then separated, and each group is invited to discuss and make a list of its perceptions of itself and the other group.
c.   In the presence of both groups, group representatives publicly share the perceptions of self and other that the groups have generated, and the groups are obligated to remain silent. The objective is simply to report to the other group as accurately as possible the images that each group has developed in private.

d.   Before any exchange takes place, the groups return to private sessions to digest and analyze what they have heard; there is great likelihood that the representatives reports have revealed to each group discrepancies between its self image and the image the other group holds of its.

e.   In public session, again working through representatives, each group shares with the other what discrepancies it has uncovered and the possible reasons for them, focusing on actual, observable behavior.

f.   Following this mutual exposure, a more open exploration is permitted between the two groups, on the now – shared goal of identifying further reasons for perceptual distortions.

g.   A joint exploration is then conducted of how to manage future relations in such a way as to encourage cooperation among groups.

Inter-group consultation can be quite demanding for everyone involved. It is fairly easy to have conflicting group's list perceptions and identify discrepancies. However, exploring their differences face to face and agreeing to change is more difficult. If handled correctly, these sessions can help department employees understand each other much better and lead to improved attitudes and better working relationships for years to come.

4.   **Practice member rotation:** Rotation means individuals from one department can be asked to work in another department on a temporary or permanent basis. The advantage is that individuals become submerged in the values, attitudes, problems, and goals of the other department. In addition, individuals can explain the problems and goals of their original departments to their new colleagues. This enables a frank, accurate exchange of views and information.

Rotations work slowly to reduce conflict but are very effective for changing the underlying attitudes and perceptions that promote conflict.

5.   **Create shared mission and super-ordinate goals:** Another strategy is for top management to create a shared mission and establish super-ordinate goals that require cooperation among departments. Organizations with strong, adaptive cultures, where employees share a larger vision for their company, are more likely to have a united, cooperative workforce. Recent studies have shown that when employees from different departments see that their goals are linked together, they will openly share resources and information. To be effective, super-ordinate goals must be substantial, and employees must be granted the time to work cooperatively toward those goals. The reward system can also be redesigned to encourage the pursuit of the super-ordinate goals rather than departmental sub - goals.

Perhaps the most powerful super-ordinate goals are company survival. If an organizations is about to fail and jobs will be lost, groups forget their differences and try to save the organization. The goal of survivals has improved relationships among groups in meat packing plants and auto supply firms that have been about to go out of business. At Harley–Davidson Inc.., internal relationships as well as union- management relationships dramatically improved after top executives made it clear that the company was facing extinction. Harley – Davidson now applies the concept of self – directed work teams from the shop floor to the executive suite, and the workers closes to the job have the authority and responsibility to do their jobs as they see fit, in addition, all workers attend eighty hours of training. This includes training in communication and conflict resolution. The company negotiated agreements with its two unions. The international Association of Machinists and Aerospace Workers and the United Paper-workers international, to share a commitment to making Harley a high – performance organization. The new level of cooperation helped the company weather the turbulence and rise again to the pinnacle of American business success.

THE GLOBAL ENVIRONMENT

As recently as twenty years age, many organizations remained insulated from foreign competition. However, the rapid changes of the 1980s and 19990s and 1990s have led to the development of a highly competitive global economy where worldwide events that change rapidly and unpredictably are forcing companies in all industries to rethink their approach to organization design. Extraordinary advancements in communications and technology have created a new, highly competitive global landscape for organizations. Products can be made and sold anywhere in the world, communications are instant, and product development and life cycles are shorter than ever before. Technology is rapidly replacing manual labor, and the ability to create and leverage knowledge is becoming more important than the control of capital assets.

It is hard to deny the impact of these changes. A college student in Austin, Texas, can sit at their computer and communicate instantly with someone in Japan or South America, research a class project at the Library of Congress in Washington, D.C., and order products made by a company in Germany and have them delivered to her door in a matter of days. Burger King is owned by a British firm and McDonald's sells hamburgers on many every continent except Antarctica. France's Alcatel recently purchases DSC Communications Corp., with head -quarters in Texas, and U.S. based Chrysler merged with Germany's Daimler Benz. So-called American companies such as General Motors, Exxon, and Coca Cola rely on international business for a substantial portion of their sales and profits. For example, Whirlpool Corp's Brazilian affiliates contributed $ 78 million to 1997 earnings. Compared to only an $ 11 million operating profit for parent company, based in Benton Harbor, Michigan.

No company is isolated from global influence. Newly industrialized countries such as Korea, Taiwan, and Spain are fast - growing and rapidly becoming industrialized. Their companies produce low-cost, high -quality commodities and are moving into high -value items such as automobiles and high - technology electronic goods. The shift toward market economies in China, India, Eastern Europe, and the former Soviet republics is producing more sources of goods, potential new markets, and to some extent, an unpredictable future about how these countries will affect the global economy. Even more uncertainty is being created by international trading blocs such as the North American Free Trade Agreement (NAFTA), the Association of Southeast Asian Nations (ASEAN), and the European Union, which have significantly reduced tariffs and barriers to trade. These power blocs will continue to reshape the world economy and will likely mean the end of U.S domination of international trade policy.

For organizations, these events create tremendous economic volatility; No one knows whether oil will cost fifteen or thirty dollars a barrel next year. Likewise, currency values fluctuate based on inflation, trade balances, and capital investments over which no single country has control. Products we buy today, such as an IBM PC or Black & Decker appliance, may include components from a dozen nations. No company or country can provide global economic leadership; every company and country is subordinate to larger economic forces.

No wonder we've seen the dramatic restructuring of traditional industries in the United States through leveraged buyouts, mergers and breakups. These companies were striving for greater efficiency within an increasingly turbulent and competitive international environment. In addition, rapidly growing industries such as information technology and biotechnology are fostering a new industrial revolution. People who grew up feeling comfortable and secure working for a manufacturing firm appreciate just how elusive stability and security are in the new world order.

ATTRIBUTES OF ORGANIZAITONAL EXCELLENCE

There are a number of ways in which organizations are coping with the reality of increased global competitiveness. One book that is concerned with how companies can remain competitive in a changing environment, Built to Last; Successful Habits of Visionary Companies, argues that there are certain "Timeless fundamentals" that help companies achieve and sustain long-term organizational excellence. Other Publications, such as The New Pioneers, which spotlights companies that are thriving in today's turbulent environment, and The Horizontal Organization, about how companies are organizing work around core processes, have also added new understanding about organizational excellence. Some of the major ideas about excellence are summarized. They are organized into four categories; strategic orientation, top management, organizations design, and corporate culture.

1. **Strategic Orientation:** Four characteristics identified in corporate research pertain to an organization's strategic orientation.
- Being close to the customer
- Providing fast response

- Having a clear business focus and goals
- Establishing inter-organizational linkages

Excellent organizations are customer driven. Organizations are increasingly looking at customers as their most important stakeholders, and a dominant value is satisfying customer needs. For example, John Chambers, CEO of Cisco Systems, spends about 55 percent of his time with customers and receives voice-mail updates every night (365 nights a year) on key clients, many organizations are using information technology to stay close to the customer, such as by tracking customer preferences in a database or providing a Web Page where customer can get detailed information about products and services and send e-mail messages directly to company representatives.

A fast response means that successful companies respond quickly to problems and opportunities. In learning organizations, for example, information is widely shared so that all employees can act quickly on problems and opportunities. Successful organizations lead rather than follow. They take chances. Employees are encouraged to experiment, which leads to continuous improvement.

Moreover, to sustain excellence, companies need to have a clear focus and goals, as they know that to be successful; they should do what they do best. At Gerber, for example, the motto is "Babies are our business... our only business." Kodak, Coca -Cola, and Nokia has sold off unrelated product lines to focus their energies on the business.

Establishing inter-organizational linkage is a fourth key characteristic of excellent organizations. Inter-organizational relationships are becoming critical to the success of most organizations in a world of rapidly changing technology and growing global competition. In learning organizations, strategy actually emerges from collaboration with other companies. Which may include suppliers? Customers, and even competitors, inter-organizational linkages can help companies exploit new technologies, develop products faster, and serve larger markets. Cisco's partnership with Microsoft to develop a technology that makes networks more intelligent enabled them to get the product out and build the market faster for both organizations.

2.   **Top Management**: Management techniques and processes are another dimension of excellent organizations. Four elements related to managers are part of a highly successful company;

- Leadership vision
- A bias toward action, change, and learning
- Promoting a foundation of core values
- Facilitating knowledge management

To achieve and maintain excellence, an organization needs a special kind of leadership vision that provides leadership of the organization needs a special kind of leadership vision that provides leadership of the organization, not just leadership within the organization. Leaders must provide a vision of what the organization can be and what it stands for; they give employees a sense of direction, shared purpose, and meaning that persists despite changes in product line or manger turnover.

Managers and employees in excellent organization are also poised for constant change and learning. They are oriented toward action-- they don't talk problems to death before making decision or creating solutions. In learning organizations, all employees are constantly working with each other and with customers to find new and better ways of doing things. Successful companies "do it, try it, and fix it, "the decision philosophy at PepsiCo, for example, is" Ready, Fire, Aim,"

Yet decisions are not based on thin air; top managers support and promote a core ideology that permeates organizational life and guides all decision making. The best companies, like Johnson & Johnson, Wall Mart, and 3M, are guided by values and a sense of purpose that go beyond just making money. For example, the well - known Johnson & Johnson Credo, the code of ethics that tells employees what to care about and in what order, puts profits dead last -- yet the company has never lost money since going public in 1944. At cleanliness, and value; yet in other areas, employees are free to experiment, to be flexible, and to take risks in ways that can help the company reach its goals.

Another characteristic of successful organizations is that top managers recognize knowledge as a key corporate asset and work to facilitate the sharing of knowledge across the organization and the creation of new knowledge, as described KPMG Peat Marwick's interactive computer system, called Knowledge Mangers, enables each consultant to draw on the knowledge and experience of 75,000 KPMG professionals around the world. Besides locating explicit knowledge about clients experiences, Proposals, methodologies, and best practices, consultant can use knowledge Manager to post a request for help on a specific project and get immediate feedback from other

consultants, who share their own experiences and know -how. Consultants arrive at deeper insights by communicating back and forth about problems.

3. **Organization Design:** Excellent Organizations are characterized by five design attributes;
*   Simple form and lean staff
*   Empowerment to increase entrepreneurship
*   Horizontal structure and collaboration
*   A balance between financial and non-financial measures of performance
*   the use of electronic technology and e-commerce

Simple form and lean staff means that the underlying form and systems of excellent organizations are elegantly simple and few personnel are in staff positions. There is little bureaucracy. Large companies are divided into small divisions for simplicity and adaptability. In addition, employees are given the autonomy and information needed to make decisions and take action without the approval of management. Empowerment of employees is essential to the constant change and learning that mark successful companies. Creativity and innovation by employees at all levels are encouraged and rewarded, and organizational units are kept small to create a sense of belonging and shared problem solving.

Excellent organizations foster high levels of horizontal communication and collaboration, some, particularly learning organizations, shift to horizontal structures that emphasize collaborative teams of employees organized around core processes. Others use cross-functional teams, task forces, and project managers to encourage horizontal communication and collaboration.

Successful organizations also measure more than the bottom line, recognizing that excellence depends on a diverse set of competencies and values balancing financial and nonofficial measures provides a better picture of the company's performance and also helps managers align all employees toward key strategic goals. Companies such as Amoco Corporation and Nationwide Financial Services and using the balanced scorecard approach to link employee goals and activities to strategy. The balanced scorecard provides a new way to look at what drives the success of the organization and recognizes the importance of key competencies such as knowledge retention, customer satisfaction, and innovation and change. One study found that companies that carefully track these "soft" competencies along with "hard" data like financial performance and operating efficiency were more successful over the long term.

Finally, today's successful organizations are making effective use of electronics technology and e- commerce. Competitive companies such as Charles Schwab set up autonomous e-commerce divisions that are not constrained by the bureaucracy or competing needs of the traditional organization. Others use electronic technology to tie together distinct, autonomous companies into a network organization, or to link far-flung global divisions for greater collaboration and speed. some scholars have suggested that twenty - first century organizations may come to resemble amoebas -- collections of workers connected electronically who are divided into ever-changing teams that can best exploit the organization unique resources, capabilities, and core competencies.

4. **Corporate Culture:** Companies throughout the United States and Canada are discovering that employee's commitment is a vital component of organization success. Excellent companies manage to harness employee's energy and enthusiasm. They do so by;

*   Creating a climate of Trust
*   Sharing information
*   Encouraging productivity through people
*   Taking a long - term view
*   Valuing adaptation and learning

A climate of true is necessary so that employees can deal openly and honestly with one another. Collaboration across departments requires trusts. Managers and workers must trust one another to work together in joint problem solving. At food Motor Company, where workers were historically suspicious of management, a new climate of trust has led to increased productivity and reduced costs.

Rather than using information to control employees, managers in excellent organization look for ways to open channels of communication so that ideas flow in all directions. Successful companies want employees to have

complete information so they can act quickly. In addition, sharing information on such things as financial performance and operational measures enhances trust. At Springfield remanufacturing, top managers open the financial books to workers, explain what the numbers mean, and show how individual jobs affect the company's bottom line. Whole Foods Markets also shares detailed financial and performance information with every employee and even top executives. As CEO John Mackey puts it, "if you're trying to create high trust organizations, an organization where people are all for one and one for all you can't have secrets,"

Productivity through people simply means that every one must participate. Rank and file workers are considered the root of quality and productivity. People are empowered to participate in production, marketing, and new product improvement. Conflating ideas are encouraged rather than suppressed the ability to move ahead through consensus preserves the sense of trust, increases motivation, and facilitates both innovation and efficiency.

Another lesson from successful companies is the importance of taking a long term view. Organizational success is not built in a day. Successful companies realize they must invest in training employees and commit to employees for the long term. Career paths are designed to give employees broad backgrounds rather than rapid upward mobility.
Finally, excellent companies emphasize cultural values that encourage adaptation and learning rather stability and control. One of the most important components of a learning organization is a strong culture that encourages adaptation to a changing environment. For all successful organizations, culture plays a crucial role because it determines whether employees cling to outmoded ways of doing things or search for new and better approaches. Procter & Gamble CEO Durk Jager, for example ,has recognized the importance of culture in reviving the company, Jager is attempting to get employees forget about " how things have always been done" and come up with hold, risky new ideas for the company's future. His efforts to install values that encourage adaptation are an important part of Jager's plan for getting P&G back on track.

Some research suggests that organizations that have these characteristics often go through periods of lower performance. A preponderance of thee characteristics, however, can help organizations adapt and evolve as the environment changes and thus sustain a longer – term commitment to excellence.
The attributes of organizational excellence can help companies compete internationally as well as at home. Organizations also take other steps to become more competitive on a global basis. In the following section, we will discuss specific design options that can enhance global competitiveness.

DESIGNS FOR THE GLOBAL ARENA
Companies today must think globally or get left behind. The distinctions between foreign and domestic organizations are becoming increasingly blurred, and the world is rapidly becoming a single global marketplace. Global trade has tripled over the past twenty –five years. The global environment represents a huge potential market for companies. International expansion can lead to greater profits. Efficiency and responsiveness, off course, no company can become a global giant over night. The change from domestic to international usually occurs through stages of development, similar to the life cycle.

STAGES OF INTER-NATIONAL DEVELOPMENT
In stage one, the domestic stage, the company is domestically oriented, but managers are aware of the global environment and may want to consider initial foreign involvement to expand production volume, market potential is limited and is primarily in the home country. The structure of the company is domestic, typically functional or divisional, and initial foreign sales are handled through an export department. The details of freight forwarding, customs problems, and foreign exchange are handled by outsiders.

In stage two, the international stage, the company takes exports seriously and begins to think multi-domestically. Multi-domestic means competitive issues in each country are independent of other countries; the company deals with each country individually. The concern is with interred – national competitive positioning compared with other firms in the industry. At this point, an international division has replaced the export, department, and specialists are hired to handle sales, services, and ware housing abroad. Multiple countries are identified as potential market.

In stage three, the multinational stage, the company has extensive experience in a number of international markets and has established marketing, manufacturing, or research and development facilities in several foreign countries. The organization obtains a large percentage of revenues from sales outside the home country. Explosion occurs as international operations take off, and the company has business units scattered around the world along with suppliers, manufacturers, and distributors.

The fourth and ultimate stage is the global stage, which means the company transcends any single country. The business is not merely a collection of domestic industries; rather, subsidiaries are interlinked to the point where competitive position in one country significantly influences activities in other countries. Truly global companies no longer think of themselves as having a single home country, and indeed, have been called "stateless" corporations. This represents a new and dramatic evolution from the multinational company of the 1960s and 1970s.

Global companies operate in truly global fashion, and the entire world is their marketplace. Organization structure at this stage can be extremely complex and often evolves into an international matrix or transnational model.

Global companies such as Royal Dutch /Shell, Unilever, and Matsushita Electric may operate in forty to seventy – five countries. The structural problem of holding together this huge complex of subsidiaries scattered thousands of miles apart is immense. Before turning to a discussion of specific structures, let's briefly consider two additional approaches to international activity, international alliances and global teams.

STRUCTURAL DESIGN FOR GLOBAL OPERATIONS

STRUCTURAL DESIGNS FOR GLOBAL OPERATIONS
An organization's structure must fit its situation by providing sufficient information processing for coordination and control while focusing employees on specific functions, products, or geographic regions. Organizations design for international structure follows a similar logic, with special interest on global versus local strategic opportunities.

MODEL FOR GLOBAL VERSUS LOCAL OPPORTUNITIES
A major strategic issue for firms venturing into the international domain is whether (and when) to use a globalizations rather than a multi-domestic strategy. The global strategy means that product design and advertising strategy are standardized throughout the world. For example, the Japanese took business away from Canadian and American companies by developing similar high quality, low cost products for all countries. The Canadian and American companies incurred higher costs by tailoring products to specific countries. Black & Decker became much more competitive internationally when it standardized its line of power hand tools. Other products, such as Coca-Cola and Levi Jeans, are naturals for globalizations, because only advertising and marketing need to be tailored for different regions.

A multi-domestic strategy means that competition in each country is handled independently of competition in other countries. Thus, a multi- domestic strategy would encourage product design, assembly, and marketing tailored to the specific needs of each country. Some companies have found that their products do not thrive in a single global market. The French do not drink orange juice for breakfast, and laundry detergent is used to wash dishes, not clothes, in parts of Mexico Parker Pen Experienced a disaster when it reduced from five hundred to one hundred pen styles because the different styles were valued in different countries.

Companies can be characterized by whether their product and service lines have potential for globalizations, which means advantages through worldwide standardization, Companies that sell diverse products or services across many countries have a globalizations strategy.

On the other hand, some companies have products and services appropriate for a multi-domestic strategy, which means local – country advantages through differentiation and customization.

As indicated in below when forces for both global integration and national responsiveness in many countries are low, simply using an international division with the domestic structure is an appropriate way to handle international business. For some industries, however, technological, social, or economic forces may create a situation in which selling standardized products world wide provides a basis for competitive advantage. For example, the introduction of transistors and integrated circuits for the design and production of products such as televisions and radios meant companies could achieve global economies by standardizing these products worldwide. In theses cases, a global product structure is appropriate. This structure provides product managers with authority to handle their product lines on a global basis and enables the company to take advantage of a unified global marketplace. In other cases, a company can gain competitive advantages through national responsiveness- by responding to unique needs in the various countries in which it does business. For example, people in different countries have very different expectations regarding personal care products such as deodorant or toothpaste. For companies in these industries, a worldwide geographic structure is appropriate. Each country or region will have subsidiaries modifying products and services to fit that locale.

In many instances, companies will need to respond to both global and local opportunities simultaneously, in which case the global matrix structure can be used. Part of the product line may need to be standardized globally, and other parts tailored to the needs of local countries.

INTERNATIONAL DIVISION
As companies begin to explore international opportunities, they typically start with an export department that grows into an export department that grows into an international division. The international division has a status equal to the other major departments of division within the company and is illustrated international division has its own hierarchy to handle business (Licensing, joint ventures) in various countries, selling the products and services created by the domestic division, opening subsidiary plants, and in general moving the organization into more sophisticated international operations.

Although functional structures are often used domestically, they are les frequently used to manage a worldwide business. Lines of functional hierarchy running around the world would extend too long, so some form of product or geographical structure is used to subdivide the organizations into smaller units. Firms typically start with an international department and, depending on their strategy, later use product or geographic divisional structures.

GLOBAL PRODUCT DIVISION STRUCTURE

In a global product structure, the product division takes responsibility for global operations in their specific product area. Each product division can organize for international operations as it seas fit. Each division manager is responsible for planning, organizing, and controlling all functions for the production and distribution of its products for any market around the world. The product – based structure works best when a division handles products that are technologically similar and can be standardized for marketing worldwide. Eaton Corporation has used a form of worldwide product structure, as illustrated in this structure, the automotive components groups, industrial group, and so on are responsible for manufacture and sale of products worldwide. The vice – president of international is responsible for coordinators in each region, including a coordinator for Japan, Australia, South America, and northern Europe. The coordinators find ways to share facilities and improve production and delivery across all product lines sold in their region.

The product structure is great for standardizing production and sales around the globe, but it also problems. Often the product divisions do not work well together, competing instead of cooperating in some countries; and some countries may be ignored by product managers. The solution adopted by Eaton Corporation of using country coordinators who have a clearly defined role is a superb way to overcome these problems.

GLOBAL GEOGRAPHIC DIVISION STRUCTURE

A worldwide regional organization divides that world into regions, each of which reports to the CEO, each region has full control of functional activities in its geographical area. Companies that use this global geographic structure tend to have mature product lines and stable technologies. They find low – cost manufacturing within countries as well as different needs across countries for marketing and sales. Strategically, this structure can exploit many opportunities for regional or locally based competitive advantages.

The problems encountered by senior management using a global geographic structure result from the autonomy of each regional division. For example, it is difficult to do planning on a global scale – such as new product R&D – because each division acts to meet only the needs of its region. New domestic technologies and products can be difficult to transfer to international markets because each division thinks it will develop what it needs. Likewise, it is difficult to rapidly introduce product developed offshore into domestic markets; and there is often duplication of line and staff managers across regions. Companies such as Dow Chemical find ways to take advantage of the geographic structure while overcoming these problems.

Services that became an autonomous division: Subsequently the Pacific and Latin American areas developed as regional entities also. As did Canadian operations, Dow handled the problems of coordination across regions by creating a corporate – level product department to provide long-term planning and worldwide product coordination and communication. It used six corporate product directors. Each of whom had been a line manager with overseas experience. The product directors are essentially staff coordinators. But they have authority to approve large capital investments and to move manufacturing of a product from one geographic location to another to best serve corporate needs, with this structure. Dow maintains its focus on each region and achieves coordination for overall planning, Savings in administrative staff, and manufacturing and sales efficiency.

GLOBAL MATRIX STRUCTURE

We've discussed how Eaton used a global product division structure and found ways to coordinate across worldwide division. Dow Chemical used a global geographic division structure and found ways to coordinate across geographical regions. Each of these companies emphasized a single dimension. A matrix structure provides a way to achieve vertical and horizontal coordination simultaneously along two dimensions.

The matrix works best when pressure for decision making balances the interests of both product standardization and geographical localization and when coordination to share resources is important. An excellent example of a global matrix structure that has worked extremely well is ABB, an electrical equipment corporation headquartered in Zurich.

Asea Brown Boveri (ABB)

ABB, which employs more than 200,000 people worldwide and has annual revenues of $29 billion, has given new meaning to the notion of " being local worldwide" ABB owns 1,300 subsidiary companies. Divided into 5,000

profit centers located in 140 countries ABB's average plant has fewer than 200 workers and most of the company's 5,000 profit centers contain only forty to fifty people. Meaning almost everyone stays close to the customer.

At the top are the chief executive officer and an international committee of eight top managers, who hold frequent meetings around the world. Along one side of the matrix are sixty-five or so businesses areas located worldwide, into which ABB's products and services are grouped. Each business area leader is responsible for handling business on a global scale, allocating export markets, establishing cost and quality standards, and creating mixed – nationality teams to solve problems for example, the leader for power transformers is responsible for twenty –five factories in sixteen countries.

Along the other side of the matrix is a country structure, ABB has more than one hundred country managers, most of them citizens of the country in which they work. They run national companies and are responsible for local balance sheets, income statements, and career ladders. The German president, for example, is responsible for 36,000 people across several business areas that generate annual revenues in Germany of more than $ 4 billion.

The matrix structure converges at the level of the 1,300 local companies. The presidents of local companies report to two bosses – the business area leaders. Who is usually located outside the country, and the country president, who runs the company of which the local organization is a subsidiary?

ABB's philosophy is to decentralize things to the lowest levels. Global managers are generous, patient, and multilingual. They must work with teams made up of different nationalities and be culturally sensitive. They craft strategy and evaluate performance for people and subsidiaries around the world. Country managers by contrast, are regional line managers responsible for several country subsidiaries. They must cooperate with business area managers to achieve worldwide efficiencies and the introduction of new products. Finally, the presidents of local companies have both a global boss – the business area manager and a country boss. And they learn to coordinate the needs of both.

ABB is a large, successful company that has achieved the benefits of both product and geographic organizations through this matrix structure. However, over the past several years, as ABB has faced increasingly complex competitive issues, leaders have been transforming the company toward something called the transnational model.

TRANSNATIONAL MODEL
The transnational model of organizations structure goes beyond the global matrix to apply the concept of the learning organization for a huge, international corporation. The transnational model of organization is essentially the learning organization extended to the international arena. It is useful for large, multinational companies with subsidiaries in many countries that try to exploit both global and local advantages, and perhaps technological superiority, rapid innovation, and global knowledge sharing. While the matrix is effective for handling two issues (product and geographic), dealing with multiple, interrelated. Competitive issues require a more complex form of organization and structure.

The transnational model represents the most current thinking about the kind of structure needed by complex global organizations such as N.V Phillips, Headquartered in the Netherlands; Phillips has operating units in sixty countries and is typical of global companies, such as Heinz, Unilever, or Procter & Gamble.

The units in previous example are far – flung. Achieving coordination, a sense of participation and involvement by subsidiaries, and a sharing of information, new technologies, and customers requires a complex and multidimensional form of structure. For example, a global corporation like Phillips is so large that size itself is a problem when coordinating global operations. In addition, some subsidiaries may become so large that they no longer fit a narrow strategic role assigned to them by headquarters. While being part of a large organization, they also need autonomy for themselves and need to have impact on other parts of the organization.

The transnational model is much more than just an organization chart. It is a state of mind, a set of values, a shared desire to make a worldwide learning system work, and an idealized organization structure for effectively managing such a system. The transnational model cannot be given a precise definition, but the following characteristics distinguish it from and move it beyond a matrix structure.
1.   The transnational model differentiates into many centers of different kinds. Like the global matrix structure, the transnational model strives to achieve global competitiveness through both global integration and national responsiveness. However, the matrix structure had a single headquarters, a single center of control for each country, and a single center for each product line. The transnational operates on a principle of "flexible

centralization." A transnational may centralize some functions in one country, some in another, yet decentralize still other functions among its many geographically dispersed operations. An R&D center may be centralized in Holland and a purchasing center located in Sweden, while financial accounting responsibilities are decentralized to operations in many countries. A unit in Hong Kong may be responsible for coordinating activities across Asia, while activities for all other countries are coordinated by a large division headquarters in London.

2.   Subsidiary manager, initiate strategy and innovations that become strategy for the corporation as a while. In traditional structures, managers have a strategic role only for their division. In a transnational, various centers and subsidiaries can shape the company from the bottom up because there is no notion of a single headquarters, no clear top-down corporate level responsibility. Managers at all levels in any country have authority to develop creative responses and initiate programs in response to emerging local trends, then disperse their innovations worldwide. Transnational companies recognize that different parts of the organization possess different capabilities. In addition, environment al demands and opportunities vary from country to country, and exposing the whole organization to this broader range of environmental stimuli can trigger greater learning and innovation. By ensuring that the entire organization has access to the combined knowledge, abilities, and intellectual capacities of all divisions and all employees, transnational engage in continuous worldwide learning and knowledge sharing.

3.   Unification and coordination are achieved through corporate culture, shared vision and values, and management style rather than through the vertical hierarchy. The transnational is essentially a horizontal. It is diverse, extended, and exists in a fluctuating environment so that standard rules, procedures, and close supervision are not appropriate. The very nature of the transitional organization dramatically expands the difficulty of unifying and coordinating operations. To achieve unity and coordination, organization leaders build a context of shared vision, values, and perspectives among managers, who in turn cascade these elements down through all parts of the organization. For example, people are often promoted by rotation through different jobs, divisions, and countries. Moreover, long experience with the company is highly valued because these people have been strongly socialized into the corporate culture. Experience plus rotation through different divisions and regions mean that people share corporate culture and values sufficient for unity of purpose.

4.   Alliance is established with other company parts and with other companies. Although resources and functions are widely dispersed, the transnational may integrate them through strong interdependencies. A world – scale production plant in Singapore may depend on world –scale component plants in Australia, Mexico and Germany, major sales subsidiaries, in turn, depend on Singapore for finished products. In addition, each part of the organization can serve as an independent catalyst, bringing together unique elements with synergistic potential, perhaps other firms or subsidiaries from different countries, to improve its performance, these alliances may include joint ventures, cooperation with governments, and licensing arrangement.

Taken together, these characteristics facilitate organizational learning and knowledge sharing on a broad, global scale. Although the transnational model is truly a complex and "Messy" way to conceptualize organization structure, it is becoming increasingly relevant for large, global firms that treat the whole world as their playing field and do not have a single country base. The autonomy of organizational parts gives strength to smaller units and allows the firm to take advantage of rapid change an competitive opportunities. Managers follow their own instincts, using worldwide resources to achieve their local objectives. Strategy is the result of action in the sense that company parts seek to improve on their own rather than waiting for a strategy from the top. Indeed, each part of the company must be aware of the whole organization so its local actions will complement and enhance other company pars.

To achieve the advantages of the transnational model, a broad range of people throughout the organization must develop the capacity for strategic thinking and strategic action. People are not constrained by rigid rules or hierarchies but are instead empowered to think, experiment develop creative responses, and take action.

THE TREND TOWARD EMPOWERMENT

The shift to the learning organization, on both the domestic and international level, goes hand in hand with the recent trend toward empowering employees throughout the organization. Whether we are talking about self – directed teams, organic management process and systems or participative cultures, the attempts to diffuse and share power throughout the organization are widespread. The notion of giving employees the power, freedom, and information to make decision and participate fully in the organization is called empowerment.

In an environment characterized by intense global competition and new technology, many top managers believe that giving up centralized control will promote speed, flexibility, and decisiveness. Indeed, fully 74 percent of CEOs

report that they are more participatory, more consensus – oriented, and relies more on communication than on command in today's global environment. They are finding less value in being dictatorial, autocratic, or imperial. The trend is clearly toward moving power out of the executive suite and into the hands of employees. This trend can be the best known companies in the world, such as Hewlett Packard, Southwest Airlines, Boeing, General Electric, and Caterpillar.

REASONS FOR EMPOWERMENT
Why so many organization empowering workers are and what advantages do these organizations achieve? One study suggests three primary reasons firms adopt empowerment; (1) as a strategic imperative to improve products or services;(2) because other firms in their industry are doing so, how firms tend to imitate similar organizations in the same environment); and (3) to create a unique learning organization with superior performance capabilities. Of the three reasons, the most compelling in terms of durability and success is the third – to create a learning organization that becomes the basis of sustainable competitive advantage. Empowerment is essential for learning organizations because it unleashes the potential and creativity of all employees, allowing them to experiment and learn and giving them the freedom to act on their knowledge and understanding. In today's world, where competitive advantage relies increasingly on ideas and innovations, an empowered work force is critical to organizational success. People create and share knowledge because they want to these activities can't be forced out the employees or supervised in the traditional sense. Activities can't be forced out of employees or supervised in the traditional sense.

Empowerment provides a basis of sustainable competitive advantage in several ways. For one thing, empowerment increases the total amount of power in the organization. Many managers mistakenly believe power is a zero –sum game, which means they must give up power in order for someone else to have more. Not true. Both research and the experience of managers indicate that delegating power from the top creates a bigger power pie, so that everyone has more power. Ralph Stayer, CEO of Johnsonville Foods, believes a manager's strongest power comes from committed workers. "Real power comes from giving it up to others who are in a better position to do things than you are," the manager who give way power gets commitment and creativity in return. Employees find ways to use their knowledge and abilities to make good things happen. Front line workers often have a better understanding than do managers of how to improve a work process, satisfy a customer ,or solve a production problem. In addition, employees are more likely to be committed to a decision or course of action when they are closely involved in the decision making process. Management's fear of power loss is the biggest barrier to empowerment of employees; however, by understanding they will actually gain power, delegation should be easy. For example, at Fastenal, a highly successful company that sells 49,000 different kinds of fasteners, from hex nuts to pin bolt drive anchors, CEO Bob Kierlin constantly pushes management level decision making down to entry – level positions. Kierlin believes empowering his workers has been the primary reasons for the company's rapid growth, record profits, and high shareholder returns. "Just believe in people, give them a chance to make decisions, take risks, and work hard," is Kierlin's philosophy of management.

Empowerment also increases employee motivation. Research indicates that individual have a need for self – efficacy, which is the capacity to produce results or outcomes, to feel they are effective. Increasing employee power heightens motivation for task accomplishment because people improve their own effectiveness, choosing how to do the task and using their creativity. Most people come into the organization with the desire to do a good job, and empowerment enables them to release the motivation already there. Their reward is a sense of personal mastery and competence. Giving employees the power to actively affect outcomes led to a 100 percent increase in productivity in Monarch Marking Systems.

Monarch Marking Systems
When Jerry Schlaegel and Steve Schneider first rolled out a new empowerment program at Monarch Marking Systems, a manufacturer of bar coding and price marking machines, some employees flat – out refused to participate. They'd seen too many similar programs do nothing but waste their time.

The time, however, managers decided to try a new approach. Rather than initiating an open-ended process of giving workers more decision – making authority, Schlaegel and Schneider decide to give employees specific problems and charge them with not only creating a solution, but also implementing its. They told workers, " Go make it happen, then tell us about it, Some teams rapidly achieved results – one found a way to reduce the number of job categories from 120 to only 32 through cross – training; another synchronized the changing of paper rolls in a label – making line to cut set – up time by 25 percent. However, the team charged with coming up with a more efficient assembly process for a hand-held bar code reader at first rebelled. Assuming this was another exercise in coming up with

ideas that never turned into action. Top managers called them into a conference room. Laid out the problem, and gave the team a deadline for implementing their own solution.

Seeing that top managers truly expected them to produce final results. Not just ideas, the group quickly began talking about ways to solve the problem. They all knew, for example, that building a two – pound product on a mechanical conveyor belt was ridiculous -- they could stand around a work station and simply pass the product by hand. People could easily talk to one another, and those who got ahead could help out if any one else was falling behind. Ultimately, the team reduced the square footage of their assembly area 70 percent. Cut work in progress inventory by $ 127,000 doubled productivity, and reduced past due shipments 90 percent.

Worker enthusiasm and motivation at Monarch dramatically increased once employees saw the results of their own creativity and hard work. "We're not just pieces of equipment anymore," said employee Effie Winters, "my input means something."

Truly empowering workers means not only giving employees the responsibility to come up with ideas and make decision, but also allowing them to take action. By replacing an open ended "empowerment" initiative with a system that gave employees a chance to really make a difference, managers at Monarch increased employees' self – efficacy and thus their inner motivation, enabling the company to tap into the knowledge and creativity of all employees.

Another benefit from empowerment is that it may help companies retain good employees – and their knowledge. Companies that effectively empower employees often have uncommonly low turnover rates. Hewlett-Packard's turnover of engineers is only 3 percent, against an industry norm of 7 to 8 percent. People stay with companies where they feel appreciated and where their knowledge and actions can make a difference.

ELEMENTS OF EMPOWERMENT

Empowering employees means giving them four elements that enable them to act more freely to accomplish their jobs; information, knowledge, power, and rewards.

1.   Employees receive information about company performance. In companies where employees are fully empowered, such as Semco S/A, Brazil's largest manufacturer of marine and food processing equipment, no information is secret. At Semco, every employee has access to the books and any other information, including executive salaries, to show they're serious about sharing information, Semco management works the labor union that represents its workers to train employee's even messengers and cleaning people to read balance sheets and cash flow statements.

2.   Employees have knowledge and skills to contribute to company goals. Companies use various approaches to training to give employees the knowledge and skills they need to personally contribute to company performance in an empowered environment. At Ashton Photo, a volume producer of prints for professional photographers, more experienced employees are expected to educate new ones about how to read financial statements and understand how their actions and performance affect company finances. CIBC uses individual development planning guides to provide workers with a clear target of what competencies they need to develop. Fourteen Employee Development Centers across Canada provide consultants to assist employees in using learning resources to meet their goals. Xerox gives its workers what the company calls " line of sight" training, in which employees familiarize themselves with how their jobs fit into upstream and downstream activities. The training helps empowered employees make better decision that support other workers and contribute to the organization's gals.

3.   Employees have the power to make substantive decision. Many of today's most competitive companies are giving workers the power to influence work procedures and organizational direction through quality circles and self – directed work teams. At Ashton Photo, teams of workers schedule their own work loads and have the freedom to determine how to best serve customers. Each worker has a key to the building and is able to schedule his or her work time as the production schedule warrants, Team of workers at a Lucent Technologies factory in Mt. Olive, New Jersey, are continually altering the production process and even the product design. Although management establishes a list of working principles, teams have the freedom to make day to day decision and take action within those guidelines.

4.   Employees are reward based on company performance. Two of the ways in which organizations can reward employees financially based on company performance are through profit sharing and employee stock ownership plans (ESOPs). At W.L. Gore & Associates, makers of Gore- Tex, compensation takes three forms salary, profit sharing, and an associate's stock ownership program.

EMPOWERMENT APPLICATIONS

Many of today's organizations are implementing empowerment programs, but they are empowering workers to varying degrees. At some companies, empowerment means encouraging employee input while managers maintain final authority for decisions; at others it means giving front – line workers almost complete power to make decision and exercise initiative and imagination. At Nordstrom (a department store chain), for example, employees are given the following guidelines; "Rule No. 1; Use your good judgment in all situations. There will be no additional rules."

Example shows a continuum of empowerment, from a situation where front – line workers have no discretion (for example, a traditional assembly line) to full empowerment, where workers actively participate in determining organizational strategy. Current methods of empowering workers fall along this continuum. When employees are fully empowered, they are given decision making authority and control over how they do their own jobs, as well as the power to influence and change such areas as organizational goals, structures, and reward systems. As example is when self directed teams are given the power to hire, discipline, and dismiss team members and to set compensation rates. One example is W.L. Gore and Associates. The company, which operates with no titles, hierarchy, or any of the conventional structures associated with a company of its size, has remained highly successful and profitable under this empowered system for more than thirty year's. the culture emphasizes teamwork, mutual support, freedom, motivation, independent effort, and commitment to the total organization rather than to narrow jobs or department.

Empowerment programs are difficult to implement in established organizations because they destroy hierarchies and upset the familiar balance of power. A study of fortune 1000 companies found that the empowerment practices that have diffused most widely are those that redistribute power and authority the least, for example, quality circles and other types of participation groups and job enrichment and redesign. Managers may have difficulty giving up power and authority; and although workers like the increased freedom, they may balk at the added responsibility freedom brings. Most organizations begin with small steps and gradually increase employee empowerment. For example, at Recyclights, a small Minneapolis based company that recycles fluorescent lights; CEO Keith Thorndyke first gave employees control of their own tasks. As employees kills grew and they developed a greater interest in how their jobs fit into the total picture, Thorndyke recognized that workers also wanted to help shape corporate goals rather than having a plan handed down to them as a finished package.

TOWARD LEARNING ORGANIZATIONS

Empowering workers is a key step toward becoming a fluid, adaptable learning organization that can thrive in a world of rapid change. Many organizations leaders cite change as the most common problem they face. Today's business world is characterized by globalization, intense competition, instantaneous communications, and surprise. Small events may have huge consequences that are difficult or impossible to predict. Today's best organizations leaders recognize that the organization has to keep pace with what is happening in the external environment. As Jack Welch, chairman and CEO of General Electric, once stated, "When the rate of change outside exceeds the rate of change inside, the end is in sight,"

Organizations respond to external changes in many ways. For example, many organizations are adopting new organizational forms that include less hierarchy and more self –directed teams or dynamic network structures that can bring together the best combination of people and resources to remain competitive. In general, the trend is away from vertical structures that create distance between managers and workers towards horizontal structures focused on core work processes. A related shift is concern for giving employees more responsibility and authority for decision making, and a stronger interest in corporate values and culture. Some companies are transforming themselves into learning organizations, which emphasize equality, strong culture values, and a flowing, adaptable structure designed to seize opportunities, handle crises, and remain competitive in a volatile environment.

TRANSFORMATIONAL LEADERSHIP
One important question is what kind of people can lead an organization through major change, such as the shift to a learning organization? One type of leadership that has a substantial impact on organization is transformational leadership.

Transformational leaders are characterized by the ability to bring about change, innovation, and entrepreneurship. Transformational leaders motivate followers to not just follow them personally but to believe in the vision of corporate transformation, to recognize the need for revitalization, to sign on for the new vision, and to help institutionalize a new organizational process.

The need for large – scale changes in organizations – whether to implement a new corporate culture or self-directed team structure, grow to a new stage in the life cycle, or expand internationally. A massive change such as the transition to a learning organization involves a fundamental transformation of mission, structure, culture, management processes, and political system of an organization to provide a new level of organizational learning capability and knowledge sharing. Transformational leadership will be increasingly important in all industries. A transformational leader can take the organization through these major changes by successfully achieving the following lowing three activities.

1.   Create a compelling vision, in a recent survey of 1,450 executives from a dozen global firms; the ability to "articulate a tangible vision, values and strategy" was considered the most important competency for global leaders to have. The vision of a desired future state communicate that the organization must break free of previous patterns and that old structures, processes, and activities are not longer useful. By spreading the vision throughout the organizations, the transformational leaders focus the organization's learning efforts so that they increase the firm's competitive advantage. A compelling vision is one in which all organization members can believe. They understand the vision and they support if. Alfred P. West, founder and CEO of SEI investments, transformed his company into a learning organization by spreading his vision of a new kind of financial services company, in which all work is performed by self organized and self –directed teams who work directly with customers. West's vision includes the values of equality, freedom, responsibility, and dedication to serving customers. although leaders should involve managers and employees throughout the organization through task forces or other mechanisms, they alone are ultimately responsible for initiating a new vision.

2.   Mobilize commitment. For the transformation to succeed there must be a shared commitment to the new vision and mission. Leaders build a coalition to guide the transformation process and work to develop a sense of team work among the group. The collation should include people from all the levels of the organization who can engage the commitment of others and successfully guide the transformation process. Mechanisms such as off – side meetings and the large – scale intervention approach can get people together to discuss the new vision and how to achieve it.

3.   At Siemens Rolm, a U.S telecommunications business owned by Siemens AG of Germany, six hundred managers attended a three-day institute and then work back and mobilized commitment to the new vision in their own units. Large scale, discontinuous change requires special commitment, or it will be resisted as inconsistent with traditional organizational goals and activities.

4.   Empower employees. Giving employees the power and knowledge to act on the vision is critical. This means getting rid of obstacles such as strict, unnecessary rules and regulations, rigid hierarchies, and policies and procedures that limit and constrain employees. People are empowered with knowledge, resources, and discretion to make things happen. Leaders work hard to support and develop mechanisms that that allow and encourage people to actively participate in the organization. They provide opportunity for workers to learn and share their experience and understanding, which increases commitment. Transformation leaders view people as the organization's primary resources and work to unleash the potential of each employee. Rather than relying on hierarchical control, leaders motivate and align people around the vision through webs of relationships that promote learning and knowledge transfer. In the transformation of Bethlehem Steel's Sparrows Point, Maryland, division, management changed from a traditional command and control style to a new model that actively involved employees at all levels of the company in making and implementing important decision. By tapping into the knowledge and emotional commitment of employees through empowerment, Bethlehem Steel leaders revitalized the Sparrows Point division.

5.   Institutionalize a culture of change. This is the follow through stage that makes changes stick, old and outmoded values, traditions, and mind sets are permanently replaced by values of risk taking, adaptation, learning, and knowledge sharing. A culture of change recognizes hat competitive advantage is a shifting concept and that the organizations must constantly be moving forward. Leaders use symbols, stories, languages, and other mechanisms to help change organizational culture. For a learning organization, they attempt to instill practices and values that help employees be comfortable with the reality of constant change and the need for continuous experimentation and learning. A long time period, perhaps several years, may be needed for leaders to bring about this type of culture change. The transformational leader must be persistent to move the organization toward a new way of doing and thinking. The new system may alter power and status and revise interaction patterns. New executives may be hired who display values and behaviors appropriate for the new order of things. The new system is then institutionalized and made permanent.

One example of leaders with transformational qualities is Mary Ann Byrnes of Corsair Communications and group of first – rate engineers. Everything was in place to build the new business except the glue that would hold it together.

Byrnes knew she had to teach a group of government contract engineers. Who were accustomed to working what one called a "10% of the day kind of job" to compete as entrepreneurs. Byrnes's vision was to create a culture that communicated a sense of shared responsibility and destiny of everyone pulling together to serve that customer and sharing in the success or failure. She started by allowing workers to make the decision they would have to live with for example, out of a group of sixty engineers. Byrnes had to pick thirty, so she allowed the engineers themselves to decide who would stay and who would go later, she let those who stayed help select the new vice president of engineering. She set up cross –functional team that work fact to fact with customers and began sharing all information with employees. Companywide pizza lunches enhance information sharing as well as team spirit. The sense of ownership and shared destiny is strengthened because employee themselves own part of the company.

Corsair's culture has become its major competitive weapon, by trusting employees. Byrnes created an environment that motivates them to get the job done. For example when engineers told Byrnes they would need six months to solve one particular technical problem, she took them at their world and told them to get to work. At ESL, managers had insisted they do it in six weeks. And the problem never got solved. At Corsair, the engineers made their six month deadline, and subsequent goals have been met even earlier than projected.

Byrnes's skills as a transformational leader have not gone unrecognized. In June 1999, she was named chairman of the board of directors, Kevin Compton, former chairman, said, "Marry Ann has been an essential part of Corsair's success over the last five years." Thomas Meyers, who had been chief operating officer, was promoted to CEO Byrnes and other executives view these top management changes as a way to capitalize on the success of the past few years and strengthen Corsair's competitive advantage for the future.

As in the case of Corsair, transformational leaders often emerge during times of crisis or rapid change. Mary Ann Byrnes used the qualities of transformational leadership to help set the company on course to becoming a learning organization.

ASSESSING THE IMPACT OF TOP LEADERSHIP

Top leaders are responsible for changing their organizations to help them stay competitive as environmental conditions change. How are today's leaders doing in this important role? Some interesting research relates to two important issues concerning the leadership of organization; whether top management can truly have an impact on organizational performance and how executive turnover affects organizations.

EXPERIMENTS WITH TOP MANAGEMENT TEAM

In recent years, top executive have begun experimenting with the idea of top management teams, based partly on the nation that a broader range of skills, experiences, and knowledge can help the organization better recognize and respond to threats or opportunities in the environment and make the necessary changes in the organization.

The makeup of the top management group is believed to affect the development of organizational capability and the ability to exploit strategic opportunities and bring about periodic revitalizations. A team provides a range of aptitudes and skills to deal with complex organizational situations. The configuration of the top management team is believed by many researchers to be more important for organizational success than the personality characteristics of the CEO. For example the size , diversity, attitudes, and skills of the team affect patterns of communication and collaboration, which in turn affect company performance.

The emerging focus on top management teams is more realistic in some ways than focusing on individual leadership, in a complex environment; a single leader cannot do all things. An effective team has a better chance of identifying and implementing a successful strategy, of providing an accurate interpretation of the environment, and of developing internal capability based on empowered employees and a shared mind set, without a capable and effectively interacting top management team, a company cannot adapt readily in a shifting environment.

The idea of a top management team is powerful, but many times executives become quite frustrated by their efforts to operate as a teams focus on real, specific problems that require a collective effort to solve. For example, at Texas instruments during the mid 1980s a top management team focused on the company's declining calculator business. The market for calculators was in turmoil as customers shifted toward greater use of personal computers. The group used its combined skills and abilities to better understand the market and lead the company through a potential crisis.

Four significant issues that can prevent top management teams from providing effective leadership are fragmentation intense conflict, the emergence of groupthink, and inadequate capabilities of one or more top executives. The most damaging problem may be fragmentation, which means the top management team is not a team at all, but rather a group of executives each pursuing his or her own agenda. This can lead to the negative use of political activity. In addition, conflict that is too strong or becomes focused on personal rather than organizational issues can seriously limit team effectiveness. However, the complete suppression of conflict is also detrimental to performance because it can lead to groupthink, in which members agree, for the sake of harmony and cohesion, to decision that proves to be unsound. Top management teams need to engage in serous debate to reach sound decision. Finally, when one or more team members do not perform effectively or engage in shortsighted thinking ad behavior, the team and the company can suffer.

An effective top management team is a balancing act, as is an effective organization. The top executive still plays a critical role as leaders of the team and is largely responsible for its effectiveness. Considering that no one manager can do it alone in today's complex world, bringing unity of purpose to the top management team may be that most important challenge a top executive faces. In the following sections, we discuss how changes in top management affect organization.

SUCCESSION AND ADAPTATION

One finding from succession research is that, for an organization as a whole, periodic management turnover is a form of organizational adaptation. In organizations characterized by turbulent environment, the turnover of organizational leaders is greater. Such organizations are more difficult to manage, so new energy and vitality r needed on a frequent basis. Software retailer Egghead, Inc has gone through four CEO in an effort to find a leader with the right skills to revive the company.

Top manager turnover also allows an organization to cope with new contingencies. The selections of new chief executive may reflect the need for a specific skill or specialization. For example if the dominant issue confronting an given priority to financial activities. Historically, CEO backgrounds have changed with business conditions. Early in this century, large firms were controlled by people who came up through manufacturing. In the middle decades,

sales and marketing people were more frequently selected as Chief executive officers. In the 1980s and 1990s, finance personnel became increasingly dominant. The major issues confronting business organizations were first manufacturing technology, then sales, and then finance. Today, organizations are looking primarily for top leaders who have a track record of being change leaders. Companies in a volatile environment need a CEO Who can shake things up and keep the company moving forward.

Turnover every few years can have a positive effect. If a chief executive and top management team serve too long, say over ten years, organizational stagnation may being. New executives are not coming in to provide fresh energy, new strategic or expertise for new environmental situations.

One example of how management succession is used for adaptation is IBM, IBM was tradition bound, stagnating corporation that many analysts thought might not survive. The firm was clearly not adapting to its turbulent international environment and the rapidly changing computer industry. That all changed with the appointment of new top executives, led by CEO Lou Gerstner, who could bring new blood and an orientation to change and adaptation. Gerstner, along with hand – picked sidekicks who followed him from his previous job, immediately began shaking things up at Big Blue. As a result, IBM became a sizzling leader in the world of e-commerce and the stock price quadrupled.

SUCCESSION AND PERFORMANCE

In recent years, companies such as Delta Airlines, Unisys, Times Mirror, and Borland International had turnover at the top. Turnover at the top is of particular interest to organization studies because the CEO has a pervasive impact on an organization. In addition, there are often symbolic aspects connected with CEO succession, and turnover at the top may be associated with firm decline and eventual transformation.

Athletic Team Performance: One type of organizations that can help answer the question of whether manager turnover influences performance is an athletic team. The coach is the top manager of the team, and coaches are regularly replaced in both college and professional sports. Several studies have analyzed coaching changes to see whether they lead to an improvement in performance. The general finding is that manager (coach) turnover does not lead to improved performance unless the new coach is exceptionally competent. If the coach has prior experience and has brought about improvements in other teams, then the coach can make a difference. However, most manager replacements do not lead to improved performance.

Another finding from those studies is that performance leads to turnover. Teams with poor records experience greater succession because a poor record often leads to the firing of the old coach. Firing the previous coach serves as a symbol that the team is trying to improve, the term ritual scapegoat describes how turnover signals to fans and other that efforts are being made to improve that team's performance record. Corporations also use ritual scapegoat, in the sense that poor performance causes turnover. For example, the board fired the CEO at Allegheny to signal to stockholders and the press that it was attempting to make changes that would correct ethical problems and improve performance.

Corporations and Performance: A corporation is much larger and more diverse than an athletic team. Can the chief executive make a difference to performance in a corporate setting? Several studies of chief executive turnover have been conducted, including a sample of 167 corporations studied over a twenty year period, 193 manufacturing companies, a large sample of Methodist churches, and retail firms in the United Kingdom. These studies found that leader succession was associated with improved profits and stock prices and, in the case of churches, by improved attendance, membership, and donations. It was also found that performance was improved by good economic conditions and industry circumstances, but the chief executive officer had impact beyond these environmental factors. Overall, when research has been carefully done, there has been a finding that leadership succession explains 20 percent to 45 percent of the variance in an organization's outcomes.

An interesting corollary is that the importance of chief executives means turnover in some cases may lead to poorer performance. In a study of managerial succession in local newspapers, when the founder who created and developed the organizations left, performance dropped. In the early stages of the organizational life cycle, an organization depends heavily on the special skills of its founder. A new top manager is unable to achieve the same level of performance.

A realistic interpretation of these findings is the conclusion that corporate performance is the result of many factors. General economic and industry conditions outside the control of the chief executive do affect sales and net earnings. However, outcomes under the control of executive strategy such as net profit are influenced by the chief

executive. In addition, the chief executive can bring new energy for change and adaptation. By using symbolic action, a new CEO can begin a process of culture change and affect the direction and performance of the organization.

MANAGING ORGANIZATIONAL DECLINE

One reality facing leaders today is that the dramatic changes in the economy and the associated adjustment needed within the organization may cause or even require a phase of decline. Despite the booming U.S economy in recent years, all around us we see evidence that some organizations have stopped growing and many are declining. Some organization have gotten out of sync with the environment and are having a hard time competing in the world of e-commerce, for example other have had to cut large numbers of employees to reduce operating. Costs and fend off global competition. For example, Earnest W. Davenport Jr., chairman and CEO of Eastman Chemical Company, recently announced the organization's first round of companywide layoffs as part of a dramatic cost-cutting plan designed to help the company survive in the increasingly competitive chemical industry.

In this section we will examine the causes of organizational decline and discuss a model of decline stages that can be help managers understand and effectively deal with decline.

DEFINITION AND CAUSES

The term organizational decline is defended as a condition in which a substantial, absolute decrease in an organization's resource base occurs over a period of time. Organizational decline is often associated with environmental decline in the sense that an organizations' domain experiences either a reduction in size (such as shrinkage in customer demand or erosion of a city's tax base) or a reduction in shape (for example a shift in customer demand).

Several factors can cause organizational decline. Organizations progress through a life cycle and have to regularly go through periods of revitalization. Sometimes organization does not make the necessary changes as they grow older, and the company's ability to adapt to its environment deteriorates. Organizational decline may follow a long period of success because the organization becomes attached to practices and structures that worked in the past. The cultural values that led to success often become institutionalized, and companies have a hard time breaking out of these outmoded ways of thinking.

Another factor is chat organizations become vulnerable to shifts in consumer tastes or in the economic health of the larger community. Vulnerability reflects an organization's strategic inability to prosper in its environment. This often happens to young, small organizations that are not yet established. Larger, mature organizations also become vulnerable because they are unable to define the correct strategy to fit the environment. Merrill Lynch, for example, is playing catch – up because managers chose to emphasize increased traditional services rather than develop an e-commerce division when the environment changed due to the rapid rise of internet business.

Organizations also become vulnerable because of environmental decline or increased competition. Environment decline refers to reduced energy and resources available to support an organization. When the environment has less capacity to support organization, the organization has to either scale down operations or shift to another domain. For example banks, real estate firms, oil service firms, and many other organizations found the total resources base in the South west declining after oil prices dropped. Companies had to divide up a shrinking pie., so several of them inevitable declined.

Increased global competition is also influencing many companies to scale down operations and cut back personnel as they strive for lean, nimble organizations, as discussed earlier, large companies have become bloated with too many administrative and support personnel and find that they need to slim down to remain competitive. Firms such as Procter & Gamble, American Home Products Corp, Sara Lee, and Bank one have all experienced major layoffs, arguing that cutbacks are necessary in an era of cutthroat competition.

A MODEL OF DECLINE STAGES

Based on an extensive review of organizational decline research, a model of decline stages has been proposed and is summarized below this model suggests that decline, if not managed properly, can move through five stages resulting in organizational dissolution.

1. Blinded stage. The first stage of decline is the internal and external changes that threaten long – term survival and may require the organization to tighten up. The organization may have excess personnel, cumbersome procedures, or lack of harmony with customers. Leaders often miss the signals of decline at this point, and the

solution is to develop effective scanning and control systems that indicate when something is wrong. With timely information, alter leaders can bring the organization back to top performance.

2. Inaction stage. The second stage of decline is called inactions, in which denial occurs despite signs of deteriorating performance. Leaders may try to persuade employees that all is well. Creative accounting may make things look well during this period. The solutions are for leaders to recognize decline and take prompt actions to realign the organizations with the environment. Leadership actions can include new problem – solving approaches, increasing decision making participation, and encouraging expression of dissatisfaction to learn what is wrong.

3. Faulty action. In the third stage, the organization is facing serious problem, and indicators of poor performance cannot be ignored. Failure to adjust to the declining spiral at this point can lead to organizational failure. Leaders are forced by serve circumstances to consider major changes. Actions may involve retrenchment, including downsizing personnel, Leaders should reduce employee uncertainty by clarifying values and providing information. A major mistake at this stage decreases the organization's chance for a turnaround.

4. the crisis stage. In stage four, the organization still has not been able to deal with decline effectively and is facing a panic. The organization may experience chaos, efforts to go back to basics, sharp changes and anger, it is best for an organization to prevent a stage – four crisis, and the only solution is major reorganization. The social fabric of the organization is eroding, and dramatic action, such as replacing top administrator, and revolutionary changes in structure, strategy, and culture, are necessary, Downsizing may be serve.

5. Dissolution. This stage of decline is irreversible. The organizations are suffering loss of markets and reputation, the loss of its best personnel, and capital depletion. The only available strategy is to close down the organization in an orderly fashion and reduce the separation trauma of employees.

REVISION

In this handout only the topics which are covered in this course would be listed so that students know what to take from this course. Following is the summary of the topics discussed in this course:

- What's an organization?
- Importance of organizations. Can we ignore them? (examples of daily life)
- Organizations as systems, open systems
- Dimensions of organizational design: Structural and Contextual dimensions
- Strategic management
- Organizational purpose, mission, vision, goals
- Generic strategies of organizations (Porter's strategies)
- Organizational effectiveness
- Contingency approaches: Goal approach, RBV, Internal process approach
- Organizational structure
- Vertical information linkages
- Horizontal information linkages
- Functional, divisional and geographical structures
- Matrix structure
- Horizontal structure
- Boundary less organizations
- Hybrid structure
- External environment
- Environmental uncertainty
- Adapting to uncertainty through positions and departments, buffering and boundary spanning
- Differentiation Vs integration
- Mechanistic and organic designs
- Organizational ecosystems
- Population ecology model (variation, selection and retention)
- Organizational level manufacturing technologies
- Service Vs manufacturing firms
- Departmental technologies, Variety and Analyzability
- Departmental design
- IT and KM
- Inter organizational relationships
- Organizational size
- Organizational life cycle
- Organizational control systems; market, bureaucratic and clan controls
- Organizational culture
- Ethical values
- Change management
- Decision making in organizations
- Rational and bounded rationality and intuitive decision making
- Conflict, power and politics
- Contemporary trends: Globalization