New Communication Technologies, Organizational Culture, and the Creation of Innovative Learning Environments

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NEW COMMUNICATION TECHNOLOGIES, ORGANIZATIONAL CULTURE,
AND THE CREATION OF INNOVATIVE LEARNING ENVIRONMENTS

A Thesis
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Master of Arts in Communication

by
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NEW COMMUNICATION TECHNOLOGIES, ORGANIZATIONAL CULTURE,
AND THE CREATION OF INNOVATIVE LEARNING ENVIRONMENTS

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Today’s organizations face an economic climate that is globalizing, increasing customer demands for products and services that meet their unique needs and the fast pace of technological developments. Organizations require the effective use of new communication technologies as a means of sharing information and expanding capacity for innovation. The main question for this research is: When new communication technologies are introduced into organizations, how do they work together with existing cultural assumptions to produce an innovative, learning environment within the organization?

The research design involves conducting moderately structured interviews with organizational leaders in four diverse organizations: Ingram Book Company, Service Merchandise Company, Inc., LifeWay Christian Resources of the Southern Baptist Convention, and Dollar General Corporation. Results include an introduction to each company, a report on their implemented new communication technologies and innovative learning environment, and a description of their core corporate culture.
This research confirms the importance of innovation in the four interviewed companies and identifies ten core cultural characteristics that may influence the development of an innovative learning environment: 1) appearance of cultural values, 2) commitment to values, 3) total development of the individual, 4) emphasis on developing strong leadership, 5) adherence to a shared mission, 6) awareness of overall culture, 7) focus on the employee, 8) consistency in communication/no conflicting signals, 9) tight weaving of innovation and culture, and 10) communication/support of top management. Results indicate that the effective use of multiple communication technologies expands the organizations’ capacity for innovation. This research suggests that by focusing on some of the most basic elements of culture, organizations may ensure sound investment in their communication technologies.
CHAPTER I

INTRODUCTION

Today’s information-rich organizations require the effective use of new communication technologies as a means of sharing information and expanding capacity for innovation. These communication technologies promise increased effectiveness within organizations; however, some organizations incorporate these new technologies with more success than others (Horvath & Fulk, 1994). This circumstance indicates that some underlying aspects exist, which can either encourage or discourage the effective use of computer-mediated communication. Some researchers have attributed this difference to organizational social variables and culture (Horvath & Faulk, 1994; Malhotra, 1998; McKersie & Walton, 1991; Schein, 1994; Steinfield, 1992). These shared, understood organizational values affect how people communicate within the organization. It follows that culture can affect the way people communicate when using these new communication technologies. Culture provides a broader social context in which to view the effective use of these communication technologies as they contribute toward enhancing innovation.

Research Question

The goal of this research project is to identify cultural factors that influence the relationship between the use of new communication technologies and organizational innovation. The main research question for this research is, when new communication
technologies are introduced into organizations, how do they work together with existing
cultural assumptions to produce an innovative, learning environment within the
organization? Subquestions include:

1) What types of new communication technologies have been incorporated within
organizations?

2) How do organizations use new technologies to create innovative, learning
environments?

3) What type of core culture exists within the organization, and does it promote an
innovative, learning environment?

4) Do emerging patterns suggest that culture and new communication technologies work
together to produce innovation?

5) Under what core cultural conditions do new communication technologies seem to
foster an innovative learning environment?

Definition of Terms

The key terms in this research include new communication technologies,
organizational culture, and innovation. New communication technologies encompass
many forms and applications of computer-based or computer-mediated communication:
networks, computer messaging (private electronic mail), computer conferencing (group
communication through terminals), computer bulletin boards, computer newsletter /
publishing (periodic messages distributed on-line to a large group), on-line surveying,
database access (includes internal and external), teleconferencing (audio, video, or both),
and voice messaging (telephone messages stored and transmitted by computer). The
Internet and the World Wide Web present additional means for extending computer-mediated communication outside of organizational boundaries.

The scope of culture for this research project is “core corporate culture” as communicated by organizational leaders and organizational publications. Researchers have referred to core culture in many ways: corporate ideology, overall corporate culture, parent culture, overarching culture, common, organization-wide culture, organization-wide consensus, and the dominant culture (Martin, 1992; Deal & Kennedy, 1982; MacMillian, 1983; Schein, 1994). Core cultures are created around common sets of norms, values, and ideas. Effective core corporate cultures create cohesion for organizations, making them more flexible and responsive to change.

Myths, stories, fairy tales, ritual, ceremony, and other symbolic forms develop over time, often unconsciously, within all organizations and reflect the distinctive beliefs and patterns of the organization (Deal & Bolman, 1991; Deal & Key, 1998). Deal & Kennedy (1982) discuss four key attributes of culture: rites, rituals, values, and heroes. Each of these concepts supports the core corporate culture. These concepts provided the framework for identifying the core cultural characteristics of the four companies examined in this study. Deal and Kennedy (1982) define values as “the essence of a company's philosophy for achieving success” (p.21). Heroes personify these values and serve as role models for appropriate behavior. Rites and rituals are those expressive events that give culture a cohesive form. They make corporate behavior clear to everyone and include play, day-to-day rituals, and ceremonies. The core corporate culture of an organization is also apparent through common symbols, educational programs, vision,
mission, goals, organizational norms, and cues/rewards. These aspects indicate an organization's priorities and the values as espoused by top leadership.

The operational definition of innovation is two-way: (1) the creation and implementation of new ideas, beliefs, values, etc., relating to new products and services (carrying out organizational mission) and (2) new ways of doing things (new approaches). In the rapidly changing environment now facing businesses, innovation becomes one of the most important aspects of organizational communication (Rice, 1987; Kanter 1983). Kanter (1982) refers to innovation as “a new way for the company to use or expand its resources that raises long-term capacity” (p. 99). Companies must create an environment in which people can share ideas easily, an environment which enhances innovation. Computer-mediated communication systems not only can provide the means to process information regarding innovations but also can exist as an innovation that organizations must process (Rice, 1987). Rice also suggests that computer-mediated communication and on-line databases might facilitate the awareness, adoption, and implementation of innovations.

Organizations establish competitive advantage by continually creating and sharing new knowledge (Senge, 1997). Organizational learning encompasses any learning occurring within the organization as well as a total management philosophy designed to create an environment that fosters understanding and creative ability (Senge, 1997). Organizational learning and knowledge management practices enhance innovation and play a vital role in the creation of a more generative and adaptive organization. These innovative companies are grounded in three foundations: 1) a culture defined by growth opportunities, continuous improvement, respect for others’ viewpoints, and acceptance of
others; 2) a set of practices for coordinated action; and 3) a capacity to work as a system (Senge & Kofman, 1993).

Improvements in communication technology have increased the ability of organizations to communicate more efficiently and effectively. Additionally, organizations that develop innovative learning environments will be better prepared to meet the challenges of an increasingly global economy. In this study I attempt to identify characteristics of organizational core culture that enhance the impact of communication technology on creating a strong, innovative learning environment.
CHAPTER 2
REVIEW OF LITERATURE

Significance of Problem

Researchers agree that the current business environment requires an emphasis on innovation. Organizations build competitive advantage through innovative learning environments, where individuals continually create and share knowledge. The role of communication within organizations is pivotal to the creation of innovative learning environments. New communication technologies enable systems that are conducive to the adoption and diffusion of innovations. Research reveals that companies employ new communication technologies to enhance innovation; however, the key to achieving innovative learning environments lies in an organization’s core culture.

Organizations of the 1990s face a globalizing economic climate, which increases customer demands for products and services that meet their unique needs and the fast pace of technological developments (Cohen, 1997; Horvath & Fulk, 1994; King & Cushman, 1994). A series of breakthroughs has taken place in information and communication technologies that has drastically changed organizational manufacturing, marketing, and management (King & Cushman, 1994). This revolution has helped spawn the dramatic increase in world trade and the emergence of this global economy. Scott Morton (1991) focused his research on the change that new technologies bring to certain organizational functions: how people work, how organizations structure themselves, and
how corporations will collaborate and compete in the years ahead. According to Scott Morton (1991), the current business environment is “turbulent” and these conditions will likely remain for the foreseeable future.

These changes have made efficiency (speed of response and adaptability) and capacity for innovation absolutely necessary for any organization to survive and succeed (Cohen, 1997; Drucker, “Management’s new paradigms,” 1998; Peters, 1987). As Peters (1994) asserts, “Innovation is the most important business topic in a crowded marketplace” (p.194). King and Cushman (1994) discuss the role of rapid response time in organizational strategy. Organizational strategy has long focused on competitive advantage based on product cost or product differentiation leading central organizational processes to involve activities in either production and manufacturing or research and development. Even though these activities include human interaction, they are not confined solely to communication processes; communication processes function as support activities. When the source of competitive advantage becomes speed of response or time, however, effective communication becomes the primary activity. Under these conditions, other organizational processes such as manufacturing, sales, and research and development become support activities to the primary process of response time in getting a product to market (Stalk, 1988). According to Stalk, “As a strategic weapon, time is the equivalent of money, productivity, quality, even innovation” (p. 41).

With the pace of economic life quickening, product life cycles have dramatically shortened and competition has intensified (Horvath & Fulk, 1994). The product life cycle constitutes that period of time from the origin of a product idea until the market for that product disappears due to new product development. The product life cycle usually
involves several stages, product conceptualization, design, testing, refinement, mass production, marketing, shipping, selling, and servicing (King & Cushman, 1994).

Today’s marketplace demands the constant introduction of new products. “Time to market” refers to an organization’s capability of rapidly designing, producing, and bringing to market new products or of managing existing products more effectively (1994). Compressing time to market requires increased collaboration among various departments, such as design, engineering, manufacturing, distribution, and service.

Drucker (1992) suggests that innovation is learned—an essential characteristic in defining the new marketplace. Historically in a craft society, innovations took place every 80 years. This number had shrunk to about 60 years around the turn-of-the-20th-century, when technology, especially military, began to emerge. Drucker posits that today a significant innovation takes place approximately every 60 days. According to Drucker, “We have learned to innovate because we cannot expect that the accumulated competence, skill, knowledge, product, services, and structure of the present will be adequate for very long” (p. 339).

According to King and Cushman (1994), successful competition in this type of environment demands that executives employ management practices that emphasize innovation, adaptation, flexibility, efficiency, and rapid response, or “high speed management” (p. 95). The goal of high speed management lies in “the use of the new information technologies and human communication process to rapidly develop, test, and produce a steady flow of low-cost, high-quality, easily serviced, high-value products which meet the customers’ needs and to quickly get these products to market before one’s competition in an effort to achieve market penetration and large profits” (King &
Cushman, 1994, pp. 96-97). In *A Passion for Excellence* (1985), Peters and Austin describe 23 characteristics of innovative companies, including an intolerance of inaction; a tolerance and laud of failure; a physical layout that encourages cross-functional communication; stories told to new hires by senior management that focus on innovating; and a pairing of top management and innovation.

After extensive literary research of workplace trends, focus group sessions, and individual interviews involving over 200 work professionals in diverse industries, Barner (1996) identified seven trends that will reshape work environments of the near future. Three of these trends include 1) the virtual organization, 2) the rapid growth of knowledge workers, and 3) computerized coaching and electronic monitoring. The rapid evolution of electronic technologies and computer networks fuels the virtual organization. Shifts from a work force that produces products to one that primarily manages information have led to the growth of knowledge workers (Drucker, 1989; Conrad, 1998). Barner (1996) suggests that companies will continue increasing the use of electronic systems to increase employee learning, add to enhanced decision-making, and monitor performance. These changes rapidly continue to alter the nature of work.

Malone (1997) contends that changes in the economics of decision-making enabled by new information technologies have led toward greater decentralization. He points out that decision-making moves through three stages as improvements in technology reduce communication costs: 1) initial, high communication costs promote independent, decentralized decision-makers; 2) falling communication costs promote centralized decision-makers that can make better decisions from a broader perspective; and 3) continued decreasing communication costs in many situations promote connected,
decentralized decision-makers. In this third stage, decision-makers can combine the most accurate information from anywhere in the world with their own local knowledge and creativity. According to Malone, “As the economy becomes increasingly based on knowledge work and creative innovation, and as new technologies make it possible to connect decentralized decision-makers on a bigger scale than ever before, exploiting such opportunities for empowerment will surely be an important theme in the economic history of the next century” (p. 24). Malone (1997) asserts that mastering this challenge will continue to remain one of the marked differences between organizations that succeed and those that fail in the next century. He identifies the many factors that affect centralization and decentralization in organizations: interpersonal trust, distributions of power within the organization, organizational traditions, and ability to access information in order to make good decisions. Organizations must seek a balance between empowerment and control.

Bennis (1995) suggests that numerous organizations remain unequipped to understand and respond to rapid changes in the market, technology, competition, and customer needs because their structures and management function according to antiquated leadership and organizational models. He asserts that in order to sustain and thrive in today’s world order, an organization must “reinvent itself” (p. 27). This transformation, which involves becoming more efficient, faster, and smarter, constantly occurs in progressive companies such as Harley-Davidson, Toyota, Disney, and AT&T (Bennis, 1995). As a result of continuous reinvention, these companies succeed in the eyes of the competition, customers, and stakeholders. Today’s leaders must challenge
traditional, internal power structures in order to create synergy and innovation in the face of great change.

Schein (1994) posits that the ongoing economic, political, sociocultural, and technological changes that companies face require organizations to become innovative. Adaptation to current turbulent environments demands that organizations "learn how to learn," producing genuinely innovative products and services, new processes, new values, visions, etc. Schein focuses on the characteristics of organizational cultures that consistently favor innovation. A strong link exists between new communication technologies and the concept of organizational culture. Both culture and new technologies play a vital role in innovation within the organization. According to Schein (1994), unless organizations also have in place or develop innovative cultures, their information technology strategies may not be fulfilled.

The Value of an Innovative Learning Environment

King and Cushman (1994) refer to innovative management not only as product development but also as innovation in such things as corporate structure, utilization of personnel, manufacturing, marketing, servicing, and competitive positioning. According to Albrecht and Ropp (1984), "innovativeness is a product of the complex interpersonal interactions among members of a system. Innovation flourishes in organizations where information flow is widespread, feedback is rapid, and both mechanisms cut across traditional lines of authority" (p. 78). Innovation is the creation of ideas for new systems, new products and services, product improvements, marketing strategies, etc. (Albrecht and Ropp, 1984; Peters and Waterman, 1982). Many companies achieve innovation through the processes of knowledge management and organizational learning.
Drucker (1992) speaks of the link between knowledge and innovation, “We now know that the source of wealth is something specifically human: knowledge. If we apply knowledge to tasks we already know how to do we call it ‘productivity.’ If we apply knowledge to tasks that are new and different, we call it ‘innovation.’ Only knowledge allows us to achieve these two goals” (p. 26). Waterman (1994) studied several successful companies such as Motorola, FedEx, Rubbermaid, Procter and Gamble, and Merck. He discovered that these companies seemed to sustain their success on the basis of one or some combination of three fundamentals: continuous innovation, customer satisfaction, and cost.

The shift from an industrial-based economy, focused on market share and hierarchical management to a knowledge-based economy, which emphasizes networked relationships, has led to the move from manual and clerical workers to knowledge workers (Drucker, 1988; Southwick-Trask, 1996). This change has resulted from advances in information technology. Today’s knowledge-based organizations consist primarily of specialists who guide and take responsibility for their own performance through organized feedback and who generally resist “command-and-control” models of business (Drucker, 1988, p.45). According to Drucker, “As soon as a company takes the first tentative steps from data to information, its decision processes, management structure, and even the way its work gets done begin to be transformed” (p.46). Peters (1994) suggests only one company in ten recognizes and understands the importance of the development of knowledge. Of those companies, only one in ten “does it right” (p.16). He claims that doing it right is only “five percent bits and bytes; it’s 95%
psychology and sociology—an organization that dotes on sharing information rather than hoarding it” (p.16).

This new type of organization promotes a flatter organizational structure. Organizations can sharply reduce the number of management levels and individual managers who function primarily as relayers of information rather than leading or making decisions. Successful organizations build competitive advantage through “less controlling and more learning--that is, through continually creating and sharing new knowledge” (Senge, 1997, p. 32). Organizational learning requires attentiveness to the business environment and quick response (Cohen, 1997). In the most basic sense, organizational learning refers to any learning that occurs within the organization. In a broader sense, organizational learning, “embodies an entire management philosophy designed to create an environment that fosters human understanding and creative potential” (Cohen, 1997, p. 15).

A distinguishable difference exists between data, information, and knowledge. Drucker (1988, 1989) asserts that “information is data endowed with relevance and purpose,” (p.46) and the conversion of data into information requires knowledge. Similarly, Davis and Botkin (1994), suggest that data comprise the basic building blocks of knowledge-based businesses and the information economy. When arranged into meaningful patterns, data becomes information. As individuals apply information and use it productively, information becomes knowledge (1994; Clarke, 1998). Davenport, DeLong, and Beers (1998) suggest that “Knowledge is information combined with experience, context, interpretation, and reflection. It is a high-value form of information that is ready to apply to decisions and actions” (p. 43). Knowledge can exist as explicit
knowledge or tacit knowledge (Buckman, 1998). Explicit knowledge is recorded in a knowledge base or formal document. Tacit knowledge, which exists in people’s minds, represents the greatest knowledge base in any company (1998). In today’s business environment, the prevailing, indispensable source of competitive advantage lies in an organization’s ability to gather and use knowledge effectively (Trussler, 1998; Drucker, “The next information revolution,” 1998; Macintosh, 1998).

In The Fifth Discipline: The Art and Practice of the Learning Organization, Peter Senge (1990) gives the picture of the “learning organization” (p. 3) as opposed to controlling organizations that attempt to maintain traditional authoritarianism. He defines this concept as “organizations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together” (p. 3). Building a learning organization involves five disciplines: personal mastery, mental models, building shared vision, team learning, and systems thinking.

Personal mastery requires a commitment to life-long learning. Mental models constitute the assumptions or images that influence how we understand our environment. Genuine shared vision inspires people to excel and learn. Team learning begins with dialogue, which allows groups to discover insights unattainable alone. Systems thinking promotes the connectedness and mutual influence of the organizational members. The creation of a learning organization demands a new view of leadership as designers, teachers, and builders of an environment where people continually take responsibility for learning.

In a recent edition of Wired magazine, a publication that tracks new trends in technology, forty companies were selected as “Wired Index” (p. 168) companies on the
basis of their fundamental strengths in the new economy ("The New Blue Chips," 1998). The Wired Index companies were selected by editors of *Wired* with the assumption that traditional financial tools are not as effective as they once were due to an economy defined increasingly by intangibles. The editors looked for fast learners, "companies already exploiting the new realities of a digital, networked world" (1998, p. 172). They based their selection on five fundamental qualities for succeeding in an economy "whose chief characteristic is change" (p. 172). These qualities include 1) globalism, exploiting worldwide markets and open systems; 2) communication, building brands and mindshare --networking; 3) innovation, creating and utilizing new ideas as well as speed and agility; 4) technology, adaptation and using new tools to maximum effect adaptation; 5) strategic vision, understanding how to be in the right place and stay there. A few of these Wired Index companies shaping the new economy include America Online, Charles Schwab, FedEx, Lucent Technologies, Marriott International, Microsoft, Wal-Mart, and Walt Disney.

**Emergence of New Communication Technologies**

Daft and Lengel (1986) define technology as "the knowledge, tools, and techniques used to transform inputs into organizational outputs" (p.563). The impact of computers on management has been compared to the industrial revolution, which changed hierarchies, radically changed labor and society, and realigned political forces (Sankar, 1991). Conrad (1998) asserts that technology "has become so much a part of everyday operations that it is an integral part of the organization" (p. 166). He suggests that it is just as important as face-to-face or telephone conversations.
New technologies have brought about many changes conducive to the adoption and diffusion of innovations. Technology minimizes the impact of time and place, creates organizational design with fewer levels of hierarchy, enables more delegation of decision-making authority to those in lower organizational levels, and shifts the balance of power within organizations (Herschel & Andrews, 1997; Sankar, 1991). Computer-based communication technology has the potential to support upward influence and lateral influence, changing the nature and need for middle management positions (Sproull & Kiesler, 1992).

Horvath and Fulk (1994) describe organizations as information-processing systems. As Schein (1994) states, “information is the lifeblood, and information channels are the circulatory system of the organization” (p. 139). The work of the organization includes gathering, manipulating, and communicating information. Modern organizations undoubtedly feel the effects as new communication technologies allow for quicker processing, less expensive communication, and the manipulation of previously hard-to-handle information.

In early research, Thierauf (1978, as cited in Daniels, Spiker, & Papa, 1997) describes five major types of contemporary information-processing technology: (1) computerized accounting, (2) integrated data processing, (3) integrated management information systems, (4) real-time management information systems, and (5) distributed processing. As these technologies developed, they provided more potential for productivity than ever before. However, wide-area networks and local-area networks introduced an entirely new form of human communication than was previously possible. Wide-area networks (WANs) can connect thousands of computer users, and local-area
networks (LANs) connect users within a specific group (department). The introduction and use of these information networks actually made more impact on human communication than previous organizational technologies because they provided the basis for complex computer-mediated communication systems (Daniels, Spiker, & Papa, 1997).

Through computer networks, people can store, edit, exchange, broadcast, and copy any written document (Kiesler, Siegel, & McGuire, 1984; Conrad, 1998; and Sproull & Kiesler, 1992). Organizational members can transmit messages and data instantaneously, inexpensively, and quickly over long distances using this electronic communication technology. Network users can seek out and receive assistance by any number of network users, and two or more individuals can view a document, revise it, and consult with each other without physically meeting together or setting up a telephone conference.

Computer technology facilitates the unification of previously fragmented control systems and assists integration through its enhancement of communication (Sankar, 1991). These possibilities present opportunities for change within management with regard to the hierarchical location of decision-making and the size of middle management. Sankar (1991) suggests that communication technologies can exist in a bureaucratic environment; however, this type of environment inhibits communication effectiveness by constraining the flow of information.

Emerging forms of communication technology provide processes for managing knowledge effectively. These new communication systems connect people so they can share their tacit knowledge. Additionally, knowledge repositories store documents and
other kinds of explicit knowledge for wide availability (Cohen, 1997). Groupware packages, a form of software such as Lotus Notes or GroupWise, are made possible through local-area networks (Daniels et al., 1997; Davenport, Jarvenpaa, & Beers, 1996; Sproull & Kiesler, 1992). These programs combine electronic mail with individual and group scheduling, task assignment, and note taking. Group decision support systems constitute the most sophisticated level of groupware product. This software gives the option for decision-making and voting procedures (Conrad, 1998). The Internet extends e-mail and computer conferencing outside of the organization’s LANs or WANs. The World Wide Web makes quick access to an astounding amount of information possible.

The Intranet is proving its value as one of the most important business technologies of the last decade (Ubois, 1996). Intranets are internal corporate networks based on Internet and World Wide Web technologies. The appeal of Intranets lies in their ease of construction, capability to share information, inexpensive cost, and ability to unify a geographically dispersed work force. They provide less expensive alternatives to groupware products such as Lotus Notes. When used to their fullest potential, Intranets can provide the ultimate application for knowledge management (Cohen, 1998). With management support, continuous maintenance, and well-planned implementation, Intranets can become knowledge management networks that foster learning and collaboration, and enhance innovation (1998; Greenwood, 1998).

One conception of the firm of the 1990s is the “networked organization” (Rockart and Short, 1991; Sproull and Kiesler, 1991). Rockart and Short researched the impacts of information technology on organizational structure, roles, and behavior in a sample of 16 major firms. They found that networked firms have a potential for high
interconnectedness of organizational members, which permits organizations to keep desirable small organizational characteristics that prove vital in a competitive marketplace (flexibility, responsiveness to changing environment, etc.). Networked organizations constitute “communication rich environments” (1991, p. 191). Networking allows cooperative work, sharing and distribution of information, sharing of expertise, sharing of decision-making, and sharing of responsibility throughout the organization. This type of organization can exist due to low costs of information technology. Effective networks contribute to improved overall organizational performance (1991).

According to Sproull and Kiesler (1991), the networked organization connects people in diverse ways to exchange ideas and other resources. Comprised of people, forums, and resources, the networked organization involves elements of culture. Networked organizational cultures encourage participation, innovation, and open access to people and information. Policies and incentives exist that encourage information exchange. In their view, “An organization that is operating in a turbulent, unpredictable environment, however, will find that the network can become a powerful strategic tool for flexible management” (Sproull & Kiesler, 1991, p.15).

Generally consistent with the concept of the networked organization, Huber (1990) presents several propositions of the effects that computer-mediated communication and decision-making technologies have on organizational design, intelligence, and decision-making. Computerized decision-making and communication technologies lead to increased participation in the decision-making process, faster and more accurate identification of problems and opportunities, more accurate and comprehensive organizational intelligence, and more quickly attained and higher quality
decisions. Such research suggests that advances in information technology give options for new organizational design options that were not feasible before the existence of information technology.

Kielser, Siegel, and McGuire (1984) explored the impact of computer-mediated communication on group interaction and decision-making. Their findings show that computer-mediated communication has marked effects on communication efficiency, participation, interpersonal behavior, and decision-making. They found that computer-mediated groups took longer to reach consensus than did face-to-face groups, seemed to be as task oriented as face-to-face groups, and participated more equally than they did when they talked face-to-face. Their data rejected claims that lack of nonverbal involvement forms a critical dimension of electronic communication.

Quantitative research of computer mediated communication has focused on the individualistic uses of new communication technologies (Walther, 1993; Walther, 1994; Walther & Burgoon, 1992). Earlier research on interpersonal characteristics of computer-mediated communication suggests that the lack of nonverbal cues depersonalizes communication. However, in Walther’s (1993) research comparing computer conferencing and face-to-face meetings over several weeks, computer-mediated groups gradually increased in impression development to a level approaching that of face-to-face groups.

New communication technologies have definite effects on organizational members. Huber (1990) suggests that computer assisted communication technologies increase the quality of the user’s communication or decision-making process, increase the range of options for communication, and enable lower- and middle-level managers to stay
Communication Technologies Support the Development of an Innovative Learning Environment

Scharge (1990) argues that organizations need to focus on collaboration rather than on information sharing only. According to Scharge, “Simply creating communications links isn’t enough. One has to craft the communications technology in a way that creates shared spaces for collaboration, not just pipelines to exchange data” (p. 115). Collaboration involves mutual creation between at least two parties. The insights and processes created through collaboration give value to the information and to the innovative processes of the organization. The shaping of a more collaborative organizational culture is possible with the computer’s ability to process, organize, track, and analyze information (1990). With varying capacities—such as the ability to poll users, support anonymous contributions, structure meetings, conduct strategic planning, and provide mathematical forecasting—Group Decision Support Systems can enhance collaborative group work by supporting interaction processes among members (1990).

Innovation is a unique attribute of computer-mediated communication, particularly by its ability to facilitate more open organizational networks (Rice, 1987). Open networks seem to promote uncertainty reduction, increase access to information, and increase accuracy of information. Organizations with open networks (conducive to
the exchange of information) tend to be more innovative and more successful in implementing innovations (Albretch & Ropp, 1984; Ebadi & Utterback, 1984).

The use of computer-mediated communication to promote the environmental scanning function within organizations enables organizations to search out emerging issues and challenges that require changes in strategy (Sankar, 1991). Environmental scanning provides valuable information and insight that can strengthen the overall strategy and performance of any organization (King & Cushman, 1994, p. 98; Drucker, “The next information revolution,” 1998). In a study of twelve international corporations, Cvar (1984) found that successful firms differentiated themselves from unsuccessful firms by their high investments in and effective use of information technology to analyze and rapidly evaluate changes in the external organizational environment. After discovering changes in external environment, these firms would rapidly reorient their internal resources in responding to these changes (1984).

Organizations use new communication technologies to enhance organizational learning. In 1996, the American Society for Training and Development surveyed a panel of senior human resource directors and training executives regarding organizational learning (Benson, 1997). These Fortune 500 executives in various industries reported the technologies most often used for supporting communication and organizational learning include e-mail (60 percent), electronic bulletin boards (40 percent), videoconferencing (36 percent), the Internet (34 percent), and teleconferencing (17 percent).

Examples of Companies Using Communication Technologies to Enhance Innovation

Hewlett-Packard’s web-based system, Connex, provides employees with lists of experts based on skill, expertise, experience, and location (Cohen, 1998). Software such
as Lotus TeamRoom assists virtual teams in establishing common terms and practices in an electronic environment that helps team members collaborate over distances (Cohen, 1997). Nokia Research Center uses Lotus TeamRoom software in a strategy called “Future Watch” (1997, p.12). Future Watch teams monitor trends in the environment to anticipate changes and take advantage of new business opportunities. Lotus TeamRoom connects teams to each other. Observations and ideas are posted on an online Future Watch forum where others in the organization can contribute new ideas. This system encourages the development of innovative responses to customer needs (1997).

Booz-Allen and Hamilton established a best-practice application on its Intranet, Knowledge On Line (KOL) (Cohen, 1998). Rather than beginning a project with no previous experience, consultants can add value to existing knowledge by searching a repository of report and project updates prepared by internal consultants. KOL’s knowledge repository contains the company’s captured, classified, and quantified knowledge; thereby allowing consultants to launch a quick search for competitive data, comparative analysis, and business intelligence that can help solve client problems. Additionally, Booz-Allen’s Intranet supports online forums, so that an employee can log into specialized forums and consult with company experts in a particular industry.

A Memphis-based U. S. specialty chemical company, Buckman Laboratories, is a well-known knowledge management initiator. According to Buckman (1998), changes in technology, knowledge sharing, and culture have enabled the company to speed up the decision-making process and ultimately better serve their customers. Buckman Laboratories has seen many benefits since instituting a knowledge management culture: 1) reduced response time to customer from weeks to hours, 2) increased morale,
advancement and promotion of talented people, 3) elimination of the role of gatekeeper of information—middle managers, 4) a significant increase in the percentage of sales from products less than five years old (1998). These changes followed the creation of a culture that fosters trusting relationships and rewards and facilitates the sharing of knowledge.

Employing more than 2,500 people at 53 field locations in the Americas, Europe, and Asia, Sequent Computer Systems, Inc., uses its information system to manage its corporate knowledge (Odem & O’Dell, 1998). The Sequent Corporate Electronic Library (SCEL) is an internal system for capturing, documenting, and providing information to employees. Employees use SCEL to increase revenue, reduce cycle time, and learn from the experiences of other employees and previous projects. SCEL includes components built on Microsoft and Web technologies and provides an interface to several on-line transaction processing and decision support system applications. Content includes pictures, documents, presentations, spreadsheets, and mail messages, speech recordings, and full-motion video. Employees report high satisfaction with the system, which allows them to access quickly the information they need to do their jobs.

British Petroleum’s CEO, John Browne, agrees that “Learning is at the heart of a company’s ability to adapt to a rapidly changing environment” (Prokesch, 1997, p.148). Through BP’s virtual team network, organizational members can work cooperatively and share knowledge easily and rapidly regardless of distance or time. Virtual Teamworking stations feature several technologies: videoconferencing capabilities, multimedia e-mail, shared applications, scanners, and electronic whiteboards, faxes, and groupware. These personal computer stations allow people separated by thousands of miles to meet and work together electronically (Cohen, 1997). These computers as well as all 35,000
personal computers in the company can access the companies’ Intranet, which contains a growing number of home pages. Every individual at BP has the capability and authority to produce his or her own home page. As of July 1997, 40,000 pages of BP information existed on the Intranet. According to BP estimates, in its first year, the virtual team network produced at least $30 million in value. This success is due to the new processes that foster organizational learning.

Sproull and Kiesler (1991) present a two-level perspective for understanding potential changes from new communication technologies. Their perspective suggests that technologies can have both efficiency effects (first-level effects) and social system effects (second-level effects). They define a social system as a society, organization, group, or other social entity made up of interdependent people, events, and actions. Changes to improve efficiency often have other consequences, which comprise the second level effects—the social and organizational changes. These second level effects occur because communication technology causes people to pay attention to different things and interact with different people (Sproull & Kiesler, 1991). Unanticipated consequences of communication technologies remain attributable to these changes in interpersonal interactions rather than with first-level, efficiency effects.

The Key to Achieving Innovation through Technologies--Culture

Although many companies, such as those mentioned in the previous section, attain successful implementations of new communication technologies, such success in implementation is by no means typical. This situation implies the need for developing more comprehensive social theories regarding the implementation of new communication technologies to predict and guide organizational leaders in the effective implementation
of communication technologies as they seek to carry out organizational goals (Horvath & Fulk, 1994; Malhotra, 1998; Schein, 1994). Markus and Robey (1988) suggest that “the uses and consequences of information technology emerge unpredictably from complex social interactions” (p. 588). Pfeffer (1982) terms this the “emergent perspective” and points to the need for a closer examination of the norms and goals surrounding the use of communication technologies—the organizational cultures in which they exist.

Horvath and Fulk (1994) describe organizations as “complex social systems containing personal interaction, status and legitimacy, social power, ideology, and something akin to “culture” (p. 134), with which information technologies interact. This interaction effect influences the types of information that can be shared and levels of privacy and permanence (1994). In order for the introduction of new communication technologies to enhance innovation, practitioners must recognize these numerous social factors of the organization, including size, goals, and accepted interpersonal interaction (1994). According to Sproull and Kiesler (1992), “Computer-based communication allows people to work somewhat more efficiently, but the realized benefits depend ultimately on the policies, designs, and vision of people who want to organize work in new ways” (p. 175). Creating an innovative culture using computer-mediated communication involves the recognition of organizational norms. For example, norms that restrict information seeking can reduce the willingness of organizational members to discover possible innovation-directed information. Various cues and rewards indicate how to use computer-mediated communication within the organization (Rice, 1987).

According to Waterman (1994), “Top companies sustain innovation. The reason they can lies deep within their organizational texture” (p. 22-23). He asserts that they
find more success at innovating because they are better organized to be innovative. Organizing involves focusing on the dimensions necessary to provide unity and direction and at a minimum include attention to systems and processes, shared values within the culture, priorities of leadership, skill sets of employees, and organizational structure (Waterman, 1994).

Some of the most critical issues in the successful implementation of knowledge management practices depend on the organization’s culture. Organizations must create an environment that motivates employees to share and use others’ knowledge and access to the knowledge network (Davenport et al., 1998). Organizations must emphasize knowledge sharing rather than knowledge hoarding (Greenwood, 1998). According to Davenport et al. (1998), “In general if the cultural soil isn’t fertile for a knowledge project, no amount of technology, knowledge content, or good project management practices will make the effort successful” (p. 53). The culture must encourage and reward the employees’ use of knowledge tools (Cohen, 1997). As IBM consultant Laurence Pursak, University of Texas, suggests, “When it comes to successfully managing knowledge, culture trumps all other factors” (Cohen, 1997).

Steinfield (1992) explores theories that examine the social dynamics of the use of computer-mediated communication systems. One of these theories, the social influence approach, focuses on the social context that influences the adoption, utilization, and impact of new communication technologies. According to this approach, information provided by one’s social environment frames individual perceptions of computer-mediated communication. This information may come from various sources such as observations of others’ behaviors, organizational norms for using new media, and social
definitions of what constitutes appropriate use (Steinfeld, 1992). Such theories, which emphasize the social environment in which new communication technologies exist, can help to explain how similar technologies become applied differently in various organizations.

In a study of thirty-one knowledge management projects in twenty-four companies, Davenport et al. (1998) identifies eight characteristics of a successful knowledge project. The identified projects involve different types of knowledge—research and development, sales, production, etc. The success factors include “link to economic performance or industry value; technical and organizational infrastructure; standard, flexible knowledge structure, knowledge-friendly culture; clear purpose and language; change in motivational practices; multiple channels for knowledge transfer; and senior management support” (p. 52). At the simplest level, required technology infrastructure demands that every employee be supplied with a capable, networked personal computer with appropriate word processing and presentation software. The creation of an organizational infrastructure involves establishing a set of roles as well as individuals and groups to serve as resource personnel for projects. Some of the firms implemented multiple levels of new roles—chief knowledge officers (CKOs), knowledge project managers, knowledge reporters, and knowledge network facilitators. A knowledge friendly culture emerged as the most important factor for a project’s success. These cultures place high value on learning both on and off the job and encourage knowledge sharing through incentive and reward systems. Motivational encouragement to share knowledge should be long-term and tie in with the evaluation and compensation structure. Senior management should send messages that organizational learning and
knowledge management are vital to the company’s success (Davenport et al. 1998; Cohen, 1997).

Kanter (1982) studied the innovation of 165 middle managers in five companies and found that organizational cultures that encourage collaboration and allow various types of information to flow freely received the highest ratings of innovation. Kanter found that the most innovative managers tend to be visionary, comfortable with change, and persistent. Innovation flourishes in companies where territories overlap, people have contact across functions, and information flows freely.

McKersie and Walton (1991) examined the experiences of firms that have faced the introduction of information technologies in various settings, and they consider organizational “climate” in the decision to implement information technologies. They suggest that in some organizations political factors play a role in whether compatibility with new technologies is attainable. Managers can manipulate these political factors through strategic initiatives either before, during, or after the implementation of information technology. According to McKersie and Walton (1991), “effective implementation of information technology is, at its core, a task of managing change. As such, it is centrally concerned with people, structure, and process issues” (p. 244). An enabling culture and an adaptive organization appear to characterize successful implementations. Additionally, management’s underlying assumptions about the nature of its employees (positive or negative) can set up the destruction of the organization as a learning system. To implement technologies effectively into a culture, McKersie and Walton promote 1) the development of top management vision and active leadership of
the CEO; 2) the key role of Human Resource policies in helping the development of a new culture; and 3) participation of the users.

Frohman (1998) also discusses leadership supporting innovative learning cultures. He suggests that "Innovation is no accident--it comes from a culture that supports it, and senior managers who work hard to maintain it. How mistakes are treated is essential to maintaining the culture" (1998, p.10). Leadership must come to understand those things that interfere with and support an innovative learning environment. Senge (1990) asserts that “leaders in learning organizations are responsible for building organizations where people are continually expanding their capabilities to shape their future--that is, leaders are responsible for learning” (p. 9).

**Exploring Culture**

One of an organization’s most important assets lies in a strong culture that encourages participation and involvement of its members. Organizations that perform well usually possess a high level of shared meaning and a common vision (Denison, 1983). Sherwood (1988) describes high-performance, high-commitment organizational cultures that possess competitive advantage as being characterized by delegation, teamwork across boundaries, empowered people, people integrated with technology, and a shared sense of purpose. Such a culture results in energy, learning, quality, competence, caring, and flexibility.

Organizational culture exists as artifacts of organizational life, which comprise the overall identity of the organization (Smircich, 1983). Cultural artifacts include observable features, such as norms, values, goals, practices, rites, rituals, and orientation programs (Smircich, 1983; Schein 1994). These shared interpretations may also include
organizational history, traditions, and values. Culture determines how organizations work by providing patterns of learned, basic assumptions to members (Deal & Bolman, 1991; Schein, 1994). All members engage in the process of developing shared meanings.

According to Peters & Waterman (1982), most excellent companies have rigidly shared values. In strong organizational cultures, management clearly articulates its expectations of members, communicates desired beliefs, and celebrates desired organizational values through rites and rituals. Through key attributes such as values, rites, rituals, and heroes, management has the capability to build strong, cohesive cultures (Deal & Kennedy, 1982). Members in turn understand the organization’s identity and what management expects of them. This behavior ultimately contributes to increased organizational effectiveness. In organizations with weak cultures, members remain unfocused on overarching goals, and consequently, organizational productivity suffers.

This early perspective offered by Peters and Waterman (1982) attracted great attention from managers in U. S. organizations. Managers liked the idea of holding the key to organizational success through simple tools used to increase control over employee’s behaviors (Conrad, 1998). However, critics soon began to question the assumption that upper management could strategically control culture, arguing that little evidence supported the concept that lower-level employees in excellent firms actually share the values and beliefs claimed by upper management. Though they applauded the recognition of factors such as beliefs, values and employee interpretation and response to these concepts, they argued that this perspective severely underestimated the complex nature of changing culture (Conrad, 1998).
Some researchers question whether organizations "have" culture or "are" cultures (Deal and Bolman, 1991). Davis and Schwartz (1981) contend that "a corporation's culture, similarly, is reflected in the attitudes, the management style, and the problem-solving behavior of its people" (p. 32). Deal and Bolman (1991) also allude to different views of the relationship between culture and leadership, reflecting the dichotomy that under some conditions, leaders can shape and manage culture, while at other times leaders are shaped by culture (Deal and Bolman, 1991; Martin, 1985). Smircich (1983) defines culture as a concept in which powerful individuals influence organizational development by controlling valued resources through the use of symbols, used also by organizational members to mediate their experiences. In an exploratory study of the management of culture, Siehl (1985) suggests that managing culture involves "articulating a possible culture, coming to agree that it is desirable, and then attaining it through the sharing of desired values" (p. 139). In this view, all employees contribute to the management of culture.

Subcultures emerge from the organizational layers of companies (Martin, Sitkin & Boehm, 1985; Conrad, 1998), consisting of groups of individuals whose shared interpretation of their organization creates a bond between them and differentiates them from other groups of employees (Conrad, 1998). Subcultures can exist either in conflict or in accord with each other. Ideally, companies experience unity within diversity, where subcultures remain unique but a part of the parent culture (Schein, 1994). Deal & Kennedy (1982) purport that in a strong culture, beliefs and values have great strength and clashes of subcultures promote healthy tension. In weak cultural environments, however, subcultures can be very destructive, since corporate values are impossible to
understand. Countercultures also exist as pockets of resistance to the views embraced by top managers (Martin, 1992; Martin & Siehl, 1983).

Scholars disagree also about whether leaders can make a difference in culture and as to whether symbolic leadership is empowering or manipulative. Deal and Bolman (1991) believe that “every organization develops distinctive beliefs and patterns over time. Many of these patterns and assumptions are unconscious or taken for granted. They are reflected in myths, fairy tales, stories, rituals, ceremonies, and other symbolic forms. Managers who understand the power of symbols have a better chance of influencing their organizations than do those who focus only on other frames” (p. 268). Activist integration studies of culture purport that the leader is “the source of cultural vision that generates an organization-wide consensus, enabling the firm to maintain itself successfully, survive difficult crises, and reorient itself to changed environmental circumstances” (Martin, 1992).

Morgan (1997) asserts that organizational leaders play a large role in creating these systems of shared meaning, providing guides to organized action, and focusing the efforts of individuals in pursuit of company goals. He alludes to the important distinction between attempts to create shared meaning (visions, values, etc.) and the use of culture as a manipulative tool. He refers to culture as an experience influenced by complex interactions between people, events, situations, etc., suggesting that “managers can influence that experience by being aware of the symbolic consequences of their actions and by attempting to foster desired values. But they can never control culture in the sense that many management writers advocate” (p. 152).
Frost et al. (1985) offered a revised cultural perspective, defining culture as those intangible, understood, assigned meanings shared by people in an organization. This perspective views cultures as communicative creations (Conrad, 1998). “They emerge and are sustained by the communicative acts of all employees, not just the conscious persuasive strategies of upper management” (p. 116). However, although individual perceptions may vary, the worldviews of members of a specific culture are similar in various ways so that they have more similarities with each other than with people from other cultures (Conrad, 1998).

Researchers have attempted to measure organizational culture in many ways, most of which are qualitative in nature (Petty, et al., 1995). Goll and Sambharya (1990) measure culture in terms of management ideology. Their findings show that top management ideology and demographic characteristics exert a notable influence on firm performance. According to Smircich (1981), in order to study culture, researchers must use three forms of evidence: observation, reports from informants, and the researcher’s participation in the setting. The researcher must be concerned with understanding the shared meanings of a group of people and articulating the thematic relationships discovered after observing social interactions and focusing on symbols (rituals, programs, myths, stories, specialized vocabularies, etc.).

Sherwood (1988) asserts an optimistic view that high performance work cultures can be planned and attained when management changes its way of thinking in three areas: view of people, view of work, and view of management’s role. He suggests that management should view people as a valuable resource that needs to be developed and trusted. Organizational leaders should view work as a system that engages the person to
come together with technology to elicit significant contributions. In this view, management can expect innovative thinking and a commitment to improvement. As workers become more innovative, competent, and responsible, management needs to develop enough flexibility to meet the changing needs of the new work system. Management should support the culture rather than controlling the workforce. Leadership should focus on establishing a shared and compelling vision, (clarifying goals, establishing priorities, and enlisting support), managing the environment, and anticipating the future.

Denison (1983) investigated the relationship between corporate culture and overall performance by examining survey and performance data for thirty-four corporations. His findings suggest that organizations possessing participative corporate cultures and well-organized workplaces earn better performance records than those with less efficient cultures. Dennison suggests that participation encourages a greater degree of individual involvement; emphasizes coordination rather than informing employees as an afterthought; fosters the long-term development of responsible work habits; and fosters group rather than individual problem solving, which is ultimately more productive.

Petty, Beadles, Lowery, Chapman, and Connell (1995) also found a relationship between organizational culture and organizational performance. They distributed 3,977 survey instruments in one organization to measure four elements of corporate culture: teamwork, trust and credibility, performance and common goals, and organizational functioning. In the selected organization, they found that a culture emphasizing teamwork is more conducive to organizational effectiveness than those that do not foster
cooperative behaviors. Such behaviors include helping others, sharing information and resources, and working as a team. In another qualitative analysis, Barney (1986) states that a firm that has a valuable (enabling firm to add financial value), rare (developing characteristics uncommon to other companies), and imperfectly imitable culture (maintaining competitive advantage) possesses a sustained competitive advantage.

Dynamic and aggressive companies create and sustain a powerful set of beliefs, which are common to all organizational members (MacMillan, 1983). These beliefs "shape decisions and guide behavior of company management and employees" (1983, p. 71). In such cultures, management can delegate decision-making to lower level employees and have confidence that their decisions align with corporate ideology. A critical challenge facing senior management resides in developing and sustaining the company’s ideology appropriate to social and economic development. Company ideology involves scope of business, attitudes toward competition, functional emphasis, external relations, management style, and employee relations, among other features. Building a credible set of beliefs takes time, attention, and the continuous support and reinforcement of the CEO and top management in developing the organizational idiom, organizational legends, and reward systems. Those in top management will benefit by coming to an awareness of their organization’s culture and creating shared value among organizational members (MacMillan, 1983).

Waterman (1994) discusses the importance of culture values at Applied Energy Services (AES). From its start in 1982, the founders wanted to build a company that valued people and acted responsibly. They not only have achieved this goal but also have become a highly profitable independent power producer. Waterman points out that the
“importance of AES is that its founders have shown that a noble culture can be created by leadership from the top and then sustained by leadership from every cranny in the organization. There is no understanding AES without understanding its culture—in other words, the shared values give its people a sense of purpose” (p.112). At AES, values often precede and drive strategy, have an inspirational quality, enable all staff to become leaders, reduce the need for written policy, directives, and organization charts, are enacted by “living them” (p. 113), and are managed as proactively as budget and strategic plans.

Similarly, Peters (1994) describes the success of three management models: McDonalds, the U.S. Forest Service, and the Roman Catholic church. The key variable to maintaining a common spirit in each of these organizations is culture--common values, common symbols, education, and work rituals. Peters suggests that the fundamental task of the next decade is building strong corporate cultures.

Peters and Waterman (1982) identified eight characteristics of excellently managed companies typically not found in less successful companies. They found that successful companies stress innovation over creativity because they expect the people who get the ideas to implement them. Daft (1989) views innovation often as a group activity. Sankar (1991) links these thoughts by suggesting that creating an environment in which people can share ideas easily can provide an atmosphere where innovation is more likely to happen. Peters and Waterman (1982) note that the excellent companies view and practice communication quite differently than nonexcellent companies. Excellent companies embody an extensive network of informal, open communications. New developments such as computer networks, computer messaging, voice messaging, and computer conferencing permit even boundary constraints to disappear.
Communication can take place between members of any group at different geographic locations, in a different organizational unit, and at different levels of management.

Mantovani (1994) asserts that computer-mediated communication does not generally foster democracy in organizations. The extent to which democracy is fostered depends on social context, organizational history, and the rules that govern the use of the network itself. The climate of the organization is a powerful influence in determining how information flows throughout the organization (Davenport, Eccles, & Prusak, 1992). Democratic cultures engender democratic information flows.

In effective cultures leadership promotes risk taking and decentralized decision-making, and organizational structures promote communication and information sharing. According to Sankar (1991), "Rigid hierarchical structures have begun to crumble at the best-managed companies. Replacing them are leaner, more fluid organizations, with fewer levels of management and more direct lines of communication between the top and the bottom" (p. 217). As structures change to this new fluid organizational style, the distribution of power will change as well.

Theoretical Basis for Innovative Cultures

As previously established, technology alone cannot cause innovation. However, given the appropriate conditions for innovative culture, Schein (1994) specifies how a technological information system can enhance chances for innovation. According to Schein, the propensity for innovation in a given culture increases to the extent that it adopts the following conditions:

1. Total networking capacity connects everyone within the organization. The network may exist in forms other than electronic communication (frequent meetings, mail
systems, phone systems); however, as the constraints of time and space become more costly, communication technologies become more pertinent.

2. Members should have the ability to open and close channels as needed and the ability to filter information into the channels. Sometimes a fully connected network is not desirable for certain tasks and for stages of implementation. Members can choose to open and close channels as needed in order to avoid information overloads and ensure that pertinent information reaches appropriate members.

3. Connectivity to the environment and system openness is essential. Organizations can have a great deal of knowledge that is not shared among departments; therefore, it cannot be effectively utilized.

4. Organizations must have the ability to modify their use of information technology as new possibilities become available.

5. At least one fully functioning advanced IT system should exist somewhere in the organization.

6. Cultural assumptions regarding employee involvement, hierarchical environments to gain control, and the nature of authority should be closely examined. The potential exists for organizations not to achieve innovation if management is hierarchically control-oriented. Management that fosters participative relationships will use technology appropriately and sensitively.

Schein (1994) also suggests that the implementation of information technology forces cultural assumptions out into the open. Furthermore, he purports that in order for information technology to serve strategic organizational goals, organizations must possess or develop "innovative cultures" (p. 125). "Cultural assumptions can and will
limit the degree to which information technology can and will be used” (p. 141). By adopting a sociotechnical model (Trist, 1951) of organizational innovation, Schein (1994) points out that culture ultimately dictates how organizations use technology, what organizational structure is in place, and the types of organizational processes used. According to Schein, organizational cultures must assume certain characteristics in order to be innovative. The capacity of an organization to innovate increases to the extent that it assumes each of seven characteristics:

1. Its environments can be changed and managed. The belief that innovation is possible and necessary derives from members’ optimistic attitudes that they can influence their environment.

2. Human activity should be proactive and oriented toward problem solving. Innovators can only thrive in an environment that is optimistic and oriented toward improvement, rather than reactive or compromising.

3. Truth can be discovered by pragmatic means. Organizational members find it difficult to articulate and test new ideas in organizations dominated by various authorities.

4. Orientation of time is the near future. Organizations that emphasize the past or present focus on what has worked or what is working rather than placing value on novelty. Organizations that emphasize the far future may not take the initiative to launch innovations, thinking that the future is so far away. The adoption of a near-future orientation provides favorable conditions for innovation.

5. Human nature is neutral or good and people can improve. These type of assumptions encourage innovation, attentiveness to new ideas, and trust in organizational
members. Organizations that promote cynical attitudes about human nature will not encourage innovation and may suspect people of having ulterior motives.

6. Human relationships are based on individualism and the valuing of diversity. Generally, cultures that value individuals and individual diversity have more ideas from which to draw. However, decision-making should be participative in nature.

7. Diverse but connected subcultures are encouraged. The development of subcultures is a natural occurrence as organizations grow and mature; however, such subcultures should be a part of the parent culture. If they do not feel connected, they will feel no motivation to innovate on behalf of the entire organization. Additionally, if subcultures are not connected, their ideas cannot be perceived as relevant. Schein (1994) refers to this as “diversity-within-unity” (p.138).

As indicated by the literature, several researchers regard culture as a key indicator of success in communication technology implementation for the enhancement of innovation. In order for organizations to realize the vast potential of communication technologies in producing the much-desired effect of an innovative learning environment, they must undergird these technologies with an effective organizational culture. In summary, innovative companies possess the following characteristics.

1. They encourage employees to articulate and test new ideas;

2. They promote an environment where people can share ideas easily—an open network/system (innovative companies have structures and processes in place conducive to information sharing);

3. They promote team learning (dialogue) and systems thinking;

4. They display tolerance toward failure and promote risk-taking;
5. They place a high value on learning (environment that fosters understanding & creative ability as opposed to traditional authoritarianism);

6. They provide employees access to a knowledge network within the organization;

7. They encourage employees to share knowledge and collaborate with one another through the knowledge network (rather than knowledge hoarding);

8. They encourage knowledge sharing through incentive/reward systems, often tied in with evaluation and compensation structure;

9. They create roles for people in the company to serve as resource personnel for knowledge projects (i.e., chief knowledge officer, knowledge project managers);

10. They have support of senior management (messages that organizational learning and knowledge management are vital to the company's success).

In this research project, I attempt to discover how new communication technologies work together with existing cultural assumptions to produce an innovative learning environment. My goals are to gain a clearer understanding of the relationship between these variables, discover the cultural attributes that contribute to developing an innovative learning environment, and provide practical application for organizations desiring to implement new communication technologies for the creation of an innovative learning environment.
CHAPTER 3

METHODOLOGY

Participants

My research design involved conducting moderately structured interviews with people on the administration/executive level of four diverse companies. These four case studies provided an understanding of how these particular organizational leaders view and support the interaction of culture and new communication technologies to enhance innovation within their organization. Basic criteria for selected companies included the following: 1) they have in place various forms of new communication technologies and 2) they encourage innovation within the organization. Business Nashville and Middle Tennessee State University (Harrington & Hamm, 1998) published the 1998 rankings for publicly held corporations headquartered in the Middle Tennessee region. Ranked by information provided from each company’s fiscal year 1997 annual report, filings with the Securities and Exchange Commission, and stock report information, this listing contains such nationally recognized companies as Gaylord Entertainment Company, Service Merchandise Company Inc., Dollar General Corporation, Shoney’s Inc., and First American. My initial plan for selecting companies for this research involved contacting four top public companies in this listing and inquiring about the appropriate contact for this type of information.
I succeeded in contacting and receiving permission to interview with two middle Tennessee, public companies: Dollar General Corporation and Service Merchandise Company Inc. Service Merchandise was ranked second and Dollar General was ranked third in the 1998 rankings for publicly held corporations in the Middle Tennessee region (Harrington & Hamm, 1998). With these two public companies committed to interview, I decided to diversify my case studies and enlist two private companies. I successfully contacted Ingram Book Company and Lifeway Christian Resources. Ingram Book Company is a division of Ingram Industries, which is ranked number one in the *Nashville Business Journal* ("Top 100," 1998) top 100 Nashville-area private companies for 1998. Lifeway Christian Resources, an institution of the Southern Baptist Convention, is a private, nonprofit organization.

When speaking with the appropriate company contact, I inquired about the company’s implemented communication technologies, emphasis on innovation, and their willingness to participate in this type of research project. Though I originally intended to interview only organizational leaders at the administration/executive level of four diverse companies, participants in this research consisted of organizational leaders at the upper management level. My contacts for the research included

1. Robert C. Layne, Esq., Director of Administration and Corporate Secretary, Dollar General Corporation;


3. Gregory L. Shinn, Director, Data Administration, and David Harris, Information Resource Management, Ingram Book Company; and
4. Linda Lawson, Director of Communications, LifeWay Christian Resources.

Materials

The interview questions used in this research consisted of four basic parts (see Appendix B for a complete list of interview questions). The first series of questions consisted of introductory questions about the organization. Then I inquired about the specific communication technologies used within the organization and the requirements of technology for innovation. Next, I focused on the role of innovation within the organization and the development of an innovative learning environment. In the final portion of the interview, I centered on cultural characteristics of the organization.

Procedure

I constructed a written outline to follow when conducting the interviews. I initially explained the nature of my qualitative research project. Second, I provided each interviewee with the informed consent form (see Appendix A). All five interviewees read and signed the consent form. I alluded to the portion of the form referring to anonymity ("all information is confidential and my identity will not be revealed without my consent") and asked if they would give me permission to reveal the name of the company and the interviewee in my completed thesis. During the interviews, Layne, Shinn, Harris, and Lawson agreed to allow me to reveal their name and company name in the completed thesis. Alexander agreed after reviewing a requested a copy of the portion of the thesis focused on Service Merchandise.

I committed to share the results of the study with the interviewees, and I explained that the information would become part of the public domain. All five participants agreed to allow me to audiotape record the interview for analysis purposes. Additionally,
I assured each interviewee that the audiotape and any written notes would be kept confidential during the analysis and destroyed once I completed the analysis. Last, I explained each of the four parts of the interview to the participants. At the conclusion of each interview, I asked to view some of the communication technologies. I asked for a copy of their employee newsletter, and if I did not already know the address of their Web site, I asked for this information as well.

I originally expected the interviews to be 45 minutes in length. The actual time of the interviews was between 1 to 1½ hours, depending on the amount of time available from each interviewee. Initially, I had planned to ask to tour the facility at the conclusion of each interview. However, I decided to focus my time on the actual interview and did not ask to tour the facility. Therefore, my exposure to the facilities consisted of the lobby and the specific department that I visited.

From the data collected, I developed specific case studies to define the relationship between new communication technologies, cultural conditions, and innovation. To analyze culture from the interviewee’s perspective, I employed metaphor analysis and analysis of reflexive comments (Daniels, Spiker, & Papa, 1997). Metaphor analysis involves the assumption that metaphors secure understandings of experience. From the audio-recorded data and submitted written records, identified metaphors were isolated and examined for each organization interviewee (Koch and Deetz, 1981, as cited in Daniels, Spiker, & Papa, 1997). Analysis of reflexive comments focuses on language and discourse to reveal meanings and understand human behavior (Harre & Secord, 1972, as cited in Daniels, Spiker, & Papa, 1997). Statements of explanation, justification, etc., that are made about personal action constitute reflexive comments.
CHAPTER 4

RESULTS

These four diverse companies represent extremely different management philosophies and overall core cultures. Furthermore, they are each at varying stages in their corporate histories. Service Merchandise reflects a company in great transition; Dollar General exemplifies a company committed to values and overall culture; LifeWay faces the great responsibility of establishing a new corporate identity and transforming its workplace; and Ingram is a company that maintains privacy. Table 4.1 shows a comparison of the companies according to classification, number of employees, 1997 revenues, headquarters, and year founded.

All four companies are using new communication technologies in various ways to enhance their innovative learning environments. Technologies not employed by any of the four companies include online employee surveying and computer conferencing. All of the companies I interviewed have Web sites (www.lifeway.com; www.servicemerchandise.com; www.dollargeneral.com; and www.ingrambook.com). Each company varied in its degree of incorporated communication technology. E-mail proved to be the most used communication technology. All four companies had a presence on the World Wide Web. Ingram Book Company was the only company to have an Intranet in place. The other three companies are developing Intranet technology.
Table 4.1

Comparison of Four Companies According to Classification, Number of Employees, 1997 Revenues, Headquarters, and Year Founded

<table>
<thead>
<tr>
<th>Classification</th>
<th>Number of employees</th>
<th>1997 revenues</th>
<th>Location of headquarters</th>
<th>Year founded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingram Book Company</td>
<td>Private (book distributor)</td>
<td>2,000</td>
<td>N/A (private)</td>
<td>LaVergne</td>
</tr>
<tr>
<td>Service Merchandise</td>
<td>Public (retailer)</td>
<td>25,000 (1,500 at corporate office)</td>
<td>$3.6 billion</td>
<td>Brentwood</td>
</tr>
<tr>
<td>LifeWay Christian Resources</td>
<td>Non-Profit (education &amp; publication)</td>
<td>1,741</td>
<td>$284 million</td>
<td>Nashville</td>
</tr>
<tr>
<td>Dollar General Corporation</td>
<td>Public (retailer)</td>
<td>27,400 (500 at corporate)</td>
<td>$2.6 billion</td>
<td>Nashville</td>
</tr>
</tbody>
</table>

Each company acknowledged the importance of new communication technologies in enhancing communication and improving their business operations. This results section contains an introduction to each company, a review of their implemented communication technologies, a description of the innovative learning environment encouraged, and details about each company’s culture.

Ingram Book Company

Introduction to the company. Ingram Book Company is a division of Ingram Book Group, a wholesale distributor of books, audiobooks, periodicals, and multimedia to booksellers, librarians, and specialty retailers. The parent company to Ingram Book
Group, Ingram Industries, Inc., was ranked number one in the listing of the top 100 Nashville-area private companies in the Nashville Business Journal’s 1998 listing (“Top 100,” 1998), with revenues of more than $1.79 billion. Founded in 1978, Ingram Industries’ many companies include: Ingram Barge, Ingram Coal, Ingram Cactus, Ingram Insurance Group, Ingram Marine Group, and Ingram Micro. A private company, Ingram Book Company boasts the title of America’s largest wholesale distributor of trade books and audiobooks to the retail marketplace (“Ingram Book Group,” 1998). Ingram Book Group employs approximately 2,000 associates. Financial information about Ingram Book Company was unavailable upon request due to the private nature of the company.

The other seven divisions of Ingram Book Group include Ingram Customer Systems (provides retailers and librarians with computerized systems and services); Spring Arbor (focused on special products and services needed by Christian retailers); Ingram Library Services (a distributor of trade books, audiobooks, and video to libraries); Ingram International (provides books and audiobooks to markets around the world); Ingram Periodicals (a national direct distributor of specialty magazines in the United States); Ingram Publisher Services (provides distribution services to the publishing industry); and Lightning Print Inc. (Ingram Book Group’s new on demand printing company). Though all of these divisions are located in LaVergne, they are not housed in the same facility.

Ingram Book Company does not sell to consumers. It serves more than 32,000 retail outlets and represents more than 9,600 publishers. Currently stocking more than 370,000 titles, Ingram Book Company operates distribution centers in East Windsor, Connecticut; Petersburg, Virginia; LaVergne, Tennessee; Ft. Wayne, Indiana; Denver,
Colorado; Walnut, California; and Roseburg, Oregon. Ingram Book Company’s organization includes two related operating divisions, Ingram Audio Company and Ingram Customer Systems, Inc. Ingram Audio Company is the nation’s largest distributor of spoken audio and children’s music cassettes.

**New Communication Technologies.** Ingram Book Company scores very high in the area of new communication technologies. This organization incorporates ten of the thirteen possible new communication technologies: voice messaging, teleconferencing, Local Area Network, Wide Area Network, electronic mail, Internet/World Wide Web access, Intranet, Extranet, computer bulletin boards, and knowledge management database. They do not employ computer conferencing, computer newsletter, or online employee surveying. Their computer network connects a total of approximately 50-60 percent of associates, and only 25-30 percent of associates have Internet access. These percentages are ever increasing. Their fully functioning MIS division supports Ingram Book and consists of approximately 250 associates. Of the four companies interviewed for this study, Ingram is the only one to have an Intranet in place.

In existence for just one year, the Intranet contains a substantial amount of text-based information. They are beginning to deploy applications that access databases on a mainframe (inquiry only), and they continue to move into an environment where employees can gather and store data through the Intranet as well. The Intranet stores information about books such as pictures of book covers, annotations, and other information. As to whether employees embrace their Intranet, Harris (1998), technology manager of Ingram Book’s Intranet, commented “They die to get their hands on it! They’re beginning to find out more and more that it can serve a viable business function.
It’s gone from something that’s a novelty to a real business information, management tool.” Individual departments work with Harris to design their infrastructure on the hardware. Then the department tags someone in its area as the Webmaster. Departments have the capability to add data to their section of the Intranet when needed. Shinn’s (1998) philosophy is “let’s give them the tools to do their job--they’re going to know it better than we are.” Departments can communicate with other departments via the Intranet.

They have an operational system that allows associates to store and retrieve information. The MIS department is developing this type of system so that “when we experience certain events or certain problems we don’t have to start from scratch” (Shinn, 1998). More developed, however, is their data warehousing system. This system extracts sales information about customers, publishers, and titles from the operational systems and stores it for retrieval. They are starting to deploy this tool on the Intranet as well. Associates use this system on a “need to know” basis (Shinn, 1998). Shinn explained that “if it’s part of your job and you need to know, than you can get access to it.”

Innovative Learning Environment. Using the ten standards identified for innovative learning environment, Ingram Book Company seems to be on the lower end of innovation, meeting three of the ten criteria. Although they encourage team/systems thinking, encourage a learning environment through training, and encourage employees to share knowledge resources, they do not encourage innovation in the following areas: members encouraged to articulate and test new ideas; processes in place to promote information sharing; messages distributed regarding risk-taking behavior; priority given to innovation and organizational learning; incentive/reward systems put in place for
sharing knowledge; roles instituted for knowledge/learning projects; and senior management communicates messages about the importance of organizational learning and knowledge management.

Shinn reported that the company gives a medium to low priority to innovation and organizational learning. It seems that the MIS department encourages these concepts; however, innovation is not encouraged across organizational boundaries. Each department varies as to the emphasis it gives to innovation. For example, Shinn explained that managers vary in their communication regarding risk-taking behavior and failure. Shinn (1998) commented, “I can tell you that’s individual managers. Some managers do not want you to take a risk.” Harris (1998) agreed, “Greg and the person I worked with before, Kevin Arnold, weren’t satisfied with what I would say is the status quo...they encourage you to try, and if you fail, at least you tried--and probably learned something in the process. You won’t find that everywhere. It just depends on how conservative your manager’s style is.”

In response to the question asking how employees are encouraged to share knowledge resources, Harris (1998) mused, “I think there is more [emphasis on knowledge sharing] now. I think that especially as we over the last two years with the restructuring...I think each business unit/department has found a great need to share to survive together.” One tool that reportedly provides associates with enhanced communication across departments is Ingram Quality Improvement System (IQIS). In this system, representatives from a number of departments gather together with a project leader to analyze and improve a business system, in which the representatives have a stake. Harris (1998) said, “That facilitates a great deal of cross communication because
suddenly I’m dealing with someone over in the Marketing Department.” This practice allows associates to better understand each other’s work and business needs.

Ingram emphasizes training through the Ingram Personal Development Center (PDC). Through PDC, associates gain needed skills at no cost to the associate. An outside company, Productivity Point, also offers training for employees. However, Shinn indicated that senior management does not communicate the importance of organizational learning or knowledge management to associates.

Core Corporate Culture at Ingram. A staggering amount of diversity surrounds Ingram Book Company. This organization exists as one of eight divisions within Ingram Book Group. Furthermore, the parent company, Ingram Industries Inc., owns and operates a wide array of varied companies. Ingram Book Company employees receive messages through e-mail, Intranet, company publications, and other interoffice means. The publication Ingram News is published six times a year for associates of the Ingram companies. Ingram Book Group has its own newsletter, Home Page, which serves the LaVergne associates of Ingram Book Group.

Issues covered in the well-designed publication Ingram News are broad in scope. In the September/October 1998 issue, John and Orrin Ingram, co-presidents of Ingram Industries, informs all associates about a company-wide associate survey to collect suggestions for improving business operations, the first survey conducted in the history of Ingram to ask advice of all associates (“We Want to Hear From You,” 1998). The outside company conducting the survey ensures that all responses will remain confidential and anonymous. The September/October issue also features the Year 2000 problem, training opportunities, and service awards.
The company does not have concisely written value statements; however, in response to the question regarding values most important to Ingram, Shinn (1998) said, “Pleasing the customer and putting forth an environment that is pleasing for the associates.” Ingram Book Company seeks to lead the industry in customer service. Articles in two company newsletters as well as information on the company Web site reinforce this value. The August 17, 1998, issue of Home Page gives emphasis to customer service. A contest entitled “Customer Service Is…” (1998) encourages associates to submit entries featuring suggestions and ideas about the organization’s performance and future. Winning entries are published along with a photo of the associate, and winners receive gift certificates. Also in the newsletter, John Ingram tells associates that “delivering great customer service is what has made Ingram successful and is what will ensure our success in the future. Extraordinary associates are the key to delivering great customer service, and in my opinion, no company has more exceptional associates than Ingram” (Ingram, 1998, p. 3).

The mission according to Shinn (1998) is “to be the leader in distribution of books, audio.” They are meeting this standard currently and seek to maintain it. This mission did not appear in either of the newsletters, on the Intranet home page, or in the Ingram Book Group Web site. Shinn could not share the corporate vision due to the private nature of the company. (I did not inquire about a confusion of terms. My definition of vision may not have been his definition.) Shinn and Harris both reported that John Ingram, owner and president, serves as the role model for the company. The company also features associates of the month in Home Page, including photographs and several paragraphs about each associate. The associates featured in the August 17 issue of
Home Page were selected for their skills in focusing on customer service, serving fellow associates, and taking advantage of continuing education opportunities, as well as other positive, role-modeling behaviors ("Associate of the Month Accolades," 1998).

Associates can enjoy certain amenities available through the company. They can join the Ingram Wellness Center or shop at "First Edition" ("The First Edition, Your Link to Books and More," 1998). First Edition is an in-house store that provides associates access to more than 400,000 books as well as magazines, gift items, greeting cards, Ingram and Spring Arbor clothing, Ingram memorabilia, framed art, movie rentals, and stamps. The Ingram Personal Assistance Program aids associates with personal problems. Associates can access this free and confidential service through a 1-800 number.

Shinn and Harris reported that the company does not encourage specific day-to-day rituals. The company advocates holding department meetings once a quarter. Department directors also meet quarterly. Ingram Book Company has special events during the summer and an annual Christmas party. Shinn described an event called Publisher Days, where the company rents Smyrna Town Center for publishers to meet with associates. Ingram associates also participate in many community service activities. In Home Page, numerous photographs featured associates participating in United Way FunDay, where they had 24 booths and raised over $438,000 ("United Way FunDay," 1998). Many associates donated to United Way through pledge cards or payroll deduction. Associates also participated in a Red Cross blood drive and the Meals-On-Wheels program, preparing and delivering meals to homebound senior citizens ("Associates Give Time, Blood to Aid Community," 1998). Ingram Industries is the
sponsor of the 1998 Middle Tennessee Juvenile Diabetes Foundation Walk to Cure Diabetes.

The company encourages times of creativity and fun as well as many organizational events. United Way FunDay not only facilitates a community service effort but also provides a time when associates come together to have a good time with each other. Harris (1998) said that the company’s philosophy is “a happy employee is a productive employee. You can either chain them to the desk or you can give them a good reason to want to be there. Show them they are important as an individual, and then they’ll give you their best.”

Both Shinn and Harris (1998) mentioned the words “need to know” and “private” in response to two different questions. Because of Ingram’s private status, they remain very careful about the information they share with outsiders. Shinn said, “It’s very private and we have to be very careful on the information.” In response to my question about whether this level of privacy also exists internally, Harris shared, “I would say just from my standpoint that need to know is very prevalent. If you need to know, then you can probably find out, but if you don’t need to know, you probably won’t. There’s a real gray area where... if you dig hard enough, you can find out.” Shinn and Harris indicated that associates accept the private nature of the company.

The interviewees, the newsletters, and the Intranet refer to individuals who work at Ingram as “associates” rather than employees. As Harris (1998) stated, “you won’t find the word employee used very much—they’re associates. Because they feel like ‘employee’ gives the idea of someone who comes and clocks in and goes. Where an ‘associate’ is someone you work with that you’re very dependent upon to reach your
goal. It makes you feel like you play an important role in the company more than just, well I came in and I made my eight to five. You can have an impact if you want to.”

As indicated earlier, this company does not have concisely written value statements. Their HR policies as stated in the Compliance and Ethics Code and the Associate Handbook govern behaviors expected of associates. Shinn (1998) explained, “I think a lot of people do what I do--read it once and it goes in the desk.” When considering my account of a company that prints their values on a card, which may then appear at decision-making points in meetings, Shinn mused, “I think it would be a cultural change. I don’t think it would happen overnight. I think it’s an excellent idea. I wish people would pull out our mission statement and at least say ‘this is our mission, how does this process we’re doing today add to our mission statement.’”

Service Merchandise

Introduction to the company. Founded in Nashville, Tennessee, in 1960 by the Zimmerman family, Service Merchandise remains a leading retailer of fine jewelry and home lifestyle products. With revenues in 1997 of $3.6 billion (Harrington & Hamm, 1998), it is a Fortune 500 company that operates 359 stores in 34 states. Service Merchandise is a publicly traded company listed on the New York Stock Exchange. Headquartered in Brentwood, Tennessee, the company employs approximately 25,000 associates across the country, with approximately 1,500 people working at the corporate headquarters. Distribution centers are located in New York City; Nashville, Tennessee; Dallas, Texas; Orlando, Florida; and Montgomery, New York ("Company profile," 1998).
The opening of the first catalog showroom in 1960 was "an innovative response to consumer demand for a shopping environment positioned between the high priced, brand name department stores and the cheaper, off brand discounters" ("Company history," 1998). Consumer acceptance and continued increases in sales led to continued acquisitions and new store constructions. However, Service Merchandise suffered a significant loss in 1997. Revenues were down 8.4 percent, and net profits tumbled 333 percent.

The catalog company is now struggling to compete in today's highly competitive retail industry with rivals such as Toys R Us, Wal-Mart, Target, and Circuit City (Harrington & Hamm, 1998; "Service Merchandise," 1998). The company is making many changes due to these factors. As Alexander (1998) said, "We're really in the middle of a transition. We're going from what's been traditionally called a catalog showroom industry, to a more mainline retailer format... We're both looking forward to that and feeling some pain because we're exiting some lines of merchandise and categories."

In 1997, Service Merchandise announced results of a vigorous analysis of all aspects of the company. They implemented a number of initiatives as a result of the survey, including management restructuring and the closing of 60 underperforming stores and a distribution center serving those stores. As another outcome of the study, the company began focusing its energies in maximizing the following eight merchandise "worlds": fine jewelry, kitchen and dining, home accents and furniture, looking healthy/staying healthy, season to season, travel/adventure, electronics, and kid essentials. On September 1, 1998, a media blitz began, urging customers to "Discover the NEW
Merchandise” (Service Merchandise Online, 1998). In order to react more quickly in the fast-paced marketplace, they are moving away from their yearly catalog of 500 pages and replacing it with six monthly books from 60-100 pages in length.

Also in 1997, Raymond Zimmerman passed the chief executive officer title to Gary Witkin, while retaining his status as chairman of the board. In a recent edition of Service Sidelines, a quarterly publication for SMC associates, Gary Witkin (1998) shared, “I know of no other retailer that has effected as much change to every element of their business as quickly as we have this year” (p. 2).

New Communication Technologies. Service Merchandise scores moderately well in the area of new communication technologies. Of the thirteen possible new communication technologies, Service Merchandise incorporates eight within their organization: voice messaging, teleconferencing, Local Area Network, Wide Area Network, electronic mail, Internet/World Wide Web access, Extranet, and computer bulletin boards. They do not employ an Intranet, computer conferencing, computer newsletter, knowledge management database, or online employee surveying. Alexander reports having Lotus CC Mail and Lotus Organizer, a computer scheduling package that allows employees to schedule meetings with each other electronically. Approximately 80 percent of the 1,500 employees at the corporate headquarters are connected to their computer network. Internal e-mail at the store level allows headquarters to communicate to key personnel—store managers, assistant managers, jewelry managers, etc. Their fully functioning IT department of 265 people supports the entire organization.

From a business standpoint, the technology at Service Merchandise is extraordinary. They lead the industry in electronic operations and support services.
Technologies such as nationwide computer linkage, satellite communications system, and electronic scanning guns allow for effective inventory and cash management, as well as precise order processing ("Company profile," 1998). Alexander (1998) commented that technology "carries the base business," allowing for constant innovation. The IT department works closely with development teams to provide needed technical capabilities. Their integrated systems allow employees at various locations to impact each other. A system called Flash Sales acquires sales information from stores hourly. Viewable online, this information provides a great tool for immediate reporting of the business and saves them from printing many reports. The Internet enables electronic communication with trading/vendor partners and provides a research-gathering tool for employees. Alexander commented, "In researching new information, we use that a lot. Just to find out who has a product, or who are the players."

They are developing an Intranet and are working toward a knowledge management database/network for employees. Alexander indicated that as departments work on ways to utilize new technology, IT seeks to develop it for them. For example, the Telecommunications group has documented information about the phone systems and added it to their Extranet. If someone working on a phone system needs information, they can access the Extranet for details about the system, complete with pictures of the equipment. Alexander (1998) commented, "One of the many goals that I have is to get a lot of the departments’ documentation on an Intranet," which he hopes to have functioning in the near future. The new technology division maintains the corporate Web site. Although this division will assist in the development of the Intranet, the different business units will take ownership of their information on the Intranet.
The corporate Web site has evolved since first going online. In 1996, nearly 8,000 catalog items were made available for online viewing and purchase. Today, customers can shop on the Service Merchandise Web site, and brides-to-be can even initiate the registration process at home via the Internet.

**Innovative Learning Environment.** According to my ten standards for judging an innovative learning environment and based on comments provided by Alexander, Service Merchandise promotes an innovative learning environment. Service Merchandise meets eight of the ten criteria for innovation. The organization encourages members to articulate and test new ideas; has processes in place to promote information sharing; encourages team/systems thinking, supports risk-taking behavior; gives a high priority to innovation and organizational learning; encourages a learning environment through training; and encourages employees to share knowledge resources. In addition, senior management communicates the importance of organizational learning and knowledge management to employees. Service Merchandise does not appear to have in place roles for knowledge/learning projects or incentive/reward systems specifically for sharing knowledge.

The company encourages members to articulate and test new ideas through a suggestion box system. Senior management urges employees through various internal publications to contribute ideas. If the company adopts and uses these ideas, the responsible employee benefits, depending on the amount of savings to the company. At the end of the year, the company names one employee as corporate suggestion winner of the year and awards him or her a large gift certificate. A different suggestion box is
both formal and informal processes exist to promote information sharing and "probably the informal ones work a little better" (Shinn, 1998). The various business units use different, informal vehicles for sharing information; the "tip screen" is one formal process for merchandising system users. As they glean new insights, associates add new tips, which are archived and searchable. An announcement over the loudspeaker alerts everyone to review the tip screen, typically once or twice a day. Shinn commented, "It's the technical way to lean over your shoulder and say, 'Hey buddy, this is how to do that.'" Additionally, when an associate attends a training seminar applicable to the company as a whole, he or she writes a critique of the class. These critiques are then published for review by other employees via e-mail.

The company encourages work in teams and systems thinking. Depending on the project, employees move from their regular reporting areas to form a temporary team that will work together on the project. At the conclusion of the project, team members return to their original reporting structure.

In response to a question about messages from senior management regarding risk-taking behavior and failure, Alexander (1998) responded, "One of the core values that we're stressing is creativity and prudent risk-taking. This is conveyed from the president down to every person on staff. We see that there is advantage of getting out of the rut." Especially during Service Merchandise's current transition, senior management encourages employees to take risks.
Service Merchandise gives high priority to organizational learning. According to Shinn (1998), “I’ve been with Service almost 22 years. One of the things that’s really made it interesting to me is the ability and the opportunity that Service has presented for me to learn new things day after day.” The company stresses ongoing management training, and all employees have access to professional and skill development. Employees can apply for tuition reimbursement for continuing their education in a job-related area. An article in a recent edition of Service Sidelines states, “When you begin your career with Service Merchandise, the company takes great care to train you to be a success in your position” (“Training Department Resources Can Help,” 1998, p. 8). The Training Department’s Loan Library contains more than 350 audiocassettes, books, pamphlets, videocassettes, and workbooks on topics such as career development, communication skills, customer service, general business, leadership principles, marketing, organizing skills, time management, and training skills.

Though no formal incentive/reward systems exist for knowledge sharing, a standard policy rewards employees who submit ideas used by the company. Reward compensation depends on the number of accepted ideas. More informal incentives exist within groups for knowledge sharing, and “some groups do it better than others,” as Harris (1998) indicated. Though no formal titles reflect the role of knowledge manager, typically certain associates act as resource personnel for projects.

Alexander felt that senior management communicates the importance of organizational learning and knowledge management to employees. During quarterly update meetings, managers learn of important issues and financial situations. Alexander (1998) commented, “We’re charged with conveying that information to our direct reports
and their staff so they’re aware of it. We’re very much geared toward communicating what’s going on around the company.”

Core Corporate Culture. In addition to their human resource policies that guide employee behavior, Service Merchandise has a series of core values. Alexander carries these values on a small, printed card. They include 1) uncompromising straight talk; 2) results driven; 3) creativity and prudent risk-taking; 4) customer focus; and 5) team oriented. Alexander reported that their most important company value is customer focus. This value appears in the company newsletter and on the Web site. In a Service Sidelines article, this value statement appears, “Customers are the only reason Service Merchandise exists, and it is the personal responsibility of each associate to exceed those customers’ expectations every time” (“Bringing Them Back,” 1998, p. 9). The Service Merchandise customer service position statement reads, “We will enhance profitability by exceeding our customers’ expectations--Commitment to the highest standards of internal and external customer service will cultivate solid teamwork and long-term selling relationships. We will listen to our customers, understand and respond to their needs, and provide fast, friendly, knowledgeable service…” (1998, p. 9). The Web site also features customer service: “Service Merchandise strives to offer the best in customer service and convenience” (“Company profile,” 1998).

A monthly newsletter features employees of the month, who serve as company role models. Employees receiving this recognition enjoy a reserved parking place for that month. The employee of the year receives the first parking place next to the front entryway for an entire year as well as additional financial compensation.
Service Merchandise has a lengthy mission statement, which Alexander was unable to remember. He shared the closely related IT mission, which states “The IT division is to be a business driven professional team working as collaborative partners with our internal clients in the evaluation of business processes and the delivery of cost-effective, timely business solutions” (Alexander, 1998). The company-wide vision statement is “To be the premier home and jewelry retailer” (1998).

Most departments hold monthly employee meetings. They follow similar formats: host a speaker, discuss current projects and status updates, present service awards, introduce new employees, present people with promotions, and discuss upcoming events. Employees enjoy breakfast, lunch, or snacks, depending on the time of the meeting. Managers answer questions submitted to the suggestion box.

Service Merchandise employees participate in a wide variety of organizational events, and often these events center around community relations and special causes. Perhaps one of the most recognizable sponsorships by any company is Service Merchandise’s national sponsorship of Muscular Dystrophy Association. The retailer became a national corporate sponsor in 1978. Each year associates show their generosity and volunteer support through payroll deduction and numerous national and local fundraising events (“About our company--community service,” 1998). At the 1998 Jerry Lewis Telethon, September 6-7, Service Merchandise presented a check for over $1.7 million to MDA. Alexander reported that the employees usually have a carnival each year featuring games and entertainment, with all the proceeds going to MDA. Associates hold similar fundraising events for United Way. All Service Merchandise stores, distribution centers, and corporate associates participate in a yearly coordinated campaign.
of education and payroll deduction for United Way. The 1996 campaign raised almost $1 million.

A promotional sponsorship by Service Merchandise generating great excitement among employees is the relationship with Bill Elliott, NASCAR driver—the Service Merchandise Bill Elliott Racing Team. Alexander reported that Bill Elliott comes to the headquarters to visit, and employees can purchase NASCAR apparel to show their support.

At their own discretion, departments commonly encourage out-of-the-norm times of creativity and fun among its associates. The IT department schedules a time to go to a local restaurant for barbecue and then enjoy softball, and horseshoe pitching. Alexander explained that everyone brings desserts, and they gorge themselves and have a good time. Alexander also mentioned the full-time casual dress code at Service Merchandise. Furthermore “dress-down Friday’s” allow even more flexibility. The casual dress code helps to create a light-hearted environment among associates. Employees also participate in sports affiliated leagues, and most reporting areas have picnics during the year.

Service Merchandise has several communications methods for keeping people informed of business happenings as well as employees’ personal lives. Various publications assist in carrying information out to all the different business groups. The quarterly updates to the vice presidents and their updates to the different business units help keep everyone informed. Newsletters within the different reporting areas assist in communicating important messages. A recent Service Sidelines article explains key corporate issues relating to the corporate transitioning (“New Merchandise,” 1998). The article describes the new shopping experience and gave the rationale for making these
important business decisions. Detailed information explained specific product categories and new initiatives like gift cards and registry services, as well as plans for promotional campaigns during the month.

Though the publication refers to employees as associates, Alexander did not mention it, using the term employees rather than associates. Regarding informality at Service Merchandise, Alexander referred to their informal dress code several times. Additionally, the systems/processes in place for knowledge sharing are more informal than formal ones. Alexander (1998) used the phrase “getting out of the rut.” For example, he said, “We see that there is advantage of getting out of the rut. The rut can get comfortable, but by moving a little bit out of the rut sometimes you can gain personal satisfaction, competitive edge” (1998). Again, this reveals how these remarks connect with the overall aspect of change and transitioning.

LifeWay Christian Resources

Introduction to the company. A nonprofit organization, LifeWay Christian Resources (formerly the Baptist Sunday School Board) is owned and operated by the Southern Baptist Convention and serves as the denomination’s education and publication agency. With revenues for 1997 exceeding $284 million (“LifeWay Online Financial Facts,” 1998), LifeWay is among the world’s largest publishers of religious materials, currently producing 180 monthly and quarterly products and between 800-900 undated products annually. LifeWay does not receive funding from the Southern Baptist Convention, rather it is self-supporting through the sale of church literature, books, music, films, recordings, cassette and videotapes, Bibles, and church supplies (“About


LifeWay Christian Resources began in 1891 by vote of messengers (church representatives) to the Southern Baptist Convention with the primary purpose of publishing Sunday School literature. Today LifeWay has 10 ministry assignments from the Southern Baptist Convention: “1) to assist churches in the development of church ministries; 2) ministries to college and university students; 3) Christian schools and home school ministries; 4) ministries to men and women; 5) operation of conference centers and camps; 6) publication of books and Bibles; 7) operation of Baptist Book Stores; 8) stewardship education; 9) church architecture consultation and services; and 10) capital fund raising” (“LifeWay online, a brief history,” 1998).

New Communication Technologies. LifeWay scores well in the area of new communication technologies. Of the thirteen possible new communication technologies, LifeWay incorporates eight within their organization: voice messaging, teleconferencing, Local Area Network, Wide Area Network, electronic mail, Internet/World Wide Web access, computer bulletin boards, and computer newsletter. They do not employ Intranet, Extranet, computer conferencing, knowledge management database, or online employee
surveying. Their computer network connects approximately 95 percent of regular and regular part-time employees, an extremely high percentage. Their fully functioning Information Systems Department of 100 people supports the conference centers, bookstores, and the corporate headquarters.

They use Lotus Notes system to enable internal e-mail as well as to post items like the electronic version of their company publication and databases. They also utilize a calendaring system that allows employees to schedule meetings. Their internal, weekly publication, LifeLines, is released in both hard copy and electronic forms each Wednesday. Each Friday, the Communications Department publishes an additional electronic edition. The Communication Department also uses e-mail to send short messages to everyone pertaining to technology, human resources type issues, etc.

Through LifeWay’s Web site, customers can order materials online. As of July 1998, customers can order anything in a LifeWay Christian store online through LifeWay Christian Internet store. Underway is a project to establish an Intranet and a knowledge management database/network for employees. Lawson (1998) shared, “We have the capability to do it, but we so far haven’t been able. We experimented with it with ministry stories. If you know of some way something we’ve done has impacted somebody’s life then you contribute it here so other people can access it. But up to this point our problem has been getting employees to contribute.”

Systems now exist that enable individuals to share information by placing it on their network. For example, Lawson chairs a corporate branding team. They just recently designed a database accessible to everyone on the team, enabling her to post all of their decisions and minutes online. They are also using technology to transmit
manuscripts electronically to printers (through T1 line) as well as electronic transmission of press releases--text and images--to state Baptist newspapers. Lawson (1998) reflected about their stance in technology, "We’re not cutting edge, but we’ve made a lot of progress...I think these technologies have enabled us certainly to speed up and work smarter."

**Innovative Learning Environment.** Using the ten standards I set forth for an innovative learning environment, LifeWay Christian Resources seems to be on the lower end of innovation, meeting five of the ten criteria. LifeWay has processes in place to promote information sharing, encourages team/systems thinking, encourages a learning environment through training, and encourages employees to share knowledge resources. Also senior management communicates the importance of organizational learning and knowledge management to employees. LifeWay does not encourage employees to articulate and test new ideas, distribute messages regarding risk-taking behavior, give priority to innovation and organizational learning, have incentive/reward systems in place specifically for sharing knowledge, or institute roles for knowledge/learning projects.

Lawson (1998) reported that senior management encourages innovation and organizational learning, “but I don’t think we have formal processes in place.” In response to a question about whether senior management encourages organizational members to articulate and test new ideas, Lawson commented, “I think they are but there’s probably some conflicting signals sent at times.” She indicated however that employees possess a “great openness toward collaboration and working together.”

A workplace transformation project is underway to create innovative working environments. They currently encourage work in teams and systems thinking; however,
few instances exist where people leave their regular jobs for full-time teams. Most teams meet weekly, have accountabilities for certain tasks, and sign and route all decisions. Lawson indicated that senior management often communicates conflicting messages regarding risk-taking behavior and failure. She commented, “I think the words are exactly right. The realities don’t always measure up. In our operating principles it talks about the importance of taking risks and it’s okay to fail. But I think people can look around and see that there are—some people have been held accountable for some failures, when what they were trying to do is take a risk. We’re not perfectly living up to our principle there” (Lawson, 1998).

LifeWay provides a learning environment through an on-site training center. For example, the September 2 issue of LifeLines featured a wide array of training opportunities, including English as a second language, human resource management, how to write a business plan, effective ways to organize information, how to read and use LifeWay financial reports, balancing leadership and management, understanding this institution’s culture/organization, and creating a service-based culture (“September Training Events,” 1998). Lawson indicated that members of the management group must participate in 20 hours of management training a year. Employees receive a list of training events via e-mail, LifeLines, and a six-month catalog.

LifeWay employs informal methods for knowledge sharing. In the Communications Department, they include stories about knowledge sharing efforts in their newsletter to help employees see the possibilities. While no incentive systems exist for knowledge sharing, there are structures in place for rewarding productivity—“the results of knowledge sharing” (Lawson, 1998). LifeWay has a tradition, she said, of
“[W]hat’s going on in my area is none of your business. But there’s been some big progress even in the last year. For example, the bookstores have a database of 2 million customers that they haven’t wanted to share with anybody—and now they’re doing that” (Lawson, 1998).

Although they do not have formal roles where people serve in knowledge positions, they are moving in this direction. They have a business unit called Strategic Information and Planning, which is responsible for pulling information together and researching new product ideas. The organization employs some highly skilled technology personnel who understand and are committed to knowledge sharing.

Core Corporate Culture. Having just changed their company name from Baptist Sunday School Board to LifeWay Christian Resources, this organization is truly experiencing an identity change and closely examining the LifeWay brand. Lawson (1998) stated, “We’re saying LifeWay is our corporate brand, and the things that are true of LifeWay are true of all of us.” By shaping their corporate brand, Lawson explained they are focusing on “what you think of first in terms of the logo, the name, and other symbols, but it also includes the personality of the company, the customer benefits, the emotional nature of the company.”

Lawson (1998) commented, “When you come in our door right now, you get much more a feeling of the past. And so we’re going to start in our cafeteria with creating what we think is a LifeWay environment with photographs of people—not lots of bureaucratic stuff—but just a warm, people-focused, Christian environment. Then we hope that will carry over. And we’ll try to be intentional in some other areas. When you
have an old building with marble floors and you’ve got oil paintings of CEO’s you’ve got to put them somewhere, but maybe we don’t need them at the front door.”

LifeWay has a set of written values: leadership, quality, people, performance, integrity, and growth (“Vision, Values, Operating Principles…”, p. 5-7). Each value has a short, descriptive phase that gives further explanation. These values soon will be rewritten, but Lawson indicated that they will not change dramatically. LifeWay’s most important value is focusing on people. Initially, this value statement centered more on customers, and employees felt unimportant. By reshaping this value, they will focus on both customers and employees. They have recently embraced “customer intimacy” as their corporate value discipline (Lawson, 1998). The company promotes positive role models. Mentoring has become an important program at LifeWay. Additionally, their president serves as an exemplary Christian role model, personally writing employee birthday cards and maintaining an open door policy.

Though they do not have a mission statement, their vision is “We will assist local churches and believers to evangelize the world to Christ, develop believers, and grow churches by being the best worldwide provider of relevant, high-quality, high-value Christian products and services” (“Vision, Values, Operating Principles…”, p. 3). Powerful organizational symbols include: the word LifeWay, the cross and swirl logo, John 14:6, the color blue, and a song based on John 14:6.

Each week LifeWay employees are invited to attend “chapel.” At this weekly event, various guest speakers, authors, and artists address the employees. Many groups also have Monday morning devotionals. Other meetings are left to the discretion of individual groups. At various times during the year, groups hold At-Home-Weeks, during
which none of the staff can schedule any meeting outside the building, with work time
dedicated to various project meetings.

LifeWay sponsors many organizational events for employees. On anniversary
day in May, employees honor the founding of LifeWay. They also recognize employee
years of service. At their celebration day in November, they celebrate a successful year-
end, when appropriate. Spiritual emphasis days in the spring consist of a three-day
revival, where an outside speaker leads in worship services. A golf tournament and a
fishing tournament take place in the fall. However, out-of-the-norm times of creativity
and fun are not encouraged at LifeWay. Lawson (1998) stated, “We’ve really been
talking to our COO a lot in the last year that this needs to be a more fun place to
work…He’s open to it, but it’s still very much like ‘well, how much does it cost to do this
for thirty minutes?’”

To communicate to employees throughout the organization, the Communication
Group depends mainly on LifeLines. A Manager’s memo goes out to all managers with a
mandate to share with their employees. Additionally, new identity statements internally
communicate the LifeWay identity to employees, providing a common focus. These
statements include “seeking and doing God’s will, proclaiming God’s truth, meeting
needs in today’s world, and serving people who are serving Christ” (Lawson, 1998).

Interestingly, in the list of training seminars, two cultural titles appear,
“understanding this institution’s culture/organization” and “creating a service-based
culture” (“September Training Events, 1998, p. 6). Other culturally related titles include
“becoming a champion of change” and “branding and customer intimacy.” These
subjects indicate that LifeWay attempts to educate employees and to create a learning
environment. Lawson frequently mentioned the concept of workplace transitioning in her description of the company. She used the terms “shaping” and “transitioning” frequently, suggesting that LifeWay has come to a decision point on many issues related to innovation and cultural development (Lawson, 1998). She discussed the personality of LifeWay, “tone of voice,” and “the emotional nature of the company.” The concept of “customer intimacy” appears extremely important as indicated by Lawson and LifeLines. She used the words “struggle,” “problem,” and “challenge” several times when referring to projects (such as improving employee/customer relations). She mentioned inconsistencies and conflicting signals in messages being sent about innovation/testing new ideas, risk-taking, and failure.

Dollar General

Introduction to the company. One of the fastest growing retailers in America, Dollar General describes itself on the home page of the Web site as “a simple family of neighborhood stores serving customers with every day low prices on the basics” (“Dollar General Home Page,” 1998). This “simple family” is composed of more than 3,400 stores in 24 midwestern and southeastern states, with 1998 revenues exceeding $2.6 billion (“Dollar General Corporation,” 1998). Dollar General is a publicly traded company listed on the New York Stock Exchange. Each store receives an average of 200,000 visitors each year, and the company plans to open between 500-525 new stores this year (“Dollar General store walkthrough,” 1998). Dollar General employs 27,400 employees across the midwestern and southern states. Cal Turner Jr., grandson of the founder, serves as chairman and CEO of the company. Executive offices in Nashville, Tennessee, and administrative offices in Scottsville, Kentucky, will merge in summer of 1999 to one
facility being built in Goodlettsville, Tennessee. The company's five distribution centers are located in Scottsville; Homerville, Georgia; Ardmore, Oklahoma; South Boston, Virginia; and Indianola, Mississippi. A new distribution center in Fulton, Mississippi, will become operational in 1999 ("Dollar General store locations," 1998).

In 1939, J.L. Turner opened J.L. Turner and Son Wholesale. Then in 1955, the first Dollar Store was opened. Typically located in small rural towns and in lower-income neighborhoods "off the radar" of giant discount retailers like Wal-Mart and Kmart ("Dollar General Corporation," 1998), their "small store niche" consists of convenience and consistently low-priced, high-volume basic household items. Nearly half of Dollar General's merchandise costs about $1, with the most expensive items costing about $35. Their typical customer remains a female, rearing a family of three on a household income of $25,000 or less, and she usually lives three to five miles from the neighborhood Dollar General store ("1998 Annual report narrative," 1998). In 1997, all Dollar General stores were remodeled to improve operating efficiency.

**New Communication Technologies.** Dollar General scores lowest of the four interviewed companies in the area of new communication technologies. Of the thirteen possible new communication technologies, the company incorporates seven within their organization: voice messaging, teleconferencing, Local Area Network, Wide Area Network, electronic mail, Internet/World Wide Web access, and knowledge management database. They do not employ Intranet, Extranet, computer bulletin boards, computer conferencing, computer newsletter, or online employee surveying. Their computer network connects a very small percentage of employees. Only employees at the corporate offices are connected, representing only 500 of the 30,000 employees. Layne
(1998) indicated that this percentage will continue to increase. The Wide Area Network connects this facility with all of their distribution centers. They have a fully functioning IT division that supports the entire company.

Dollar General maintains several knowledge management databases. One fast developing database in conjunction with their support services department handles employee questions. The employee calls the specified department with his or her question, and a representative then searches online for a response. Other databases serve as collection sites for informational, statistical data used by top decision-makers in the company.

The company has two different voice messaging systems—meridian mail is on the desktop at the corporate offices, and those in the field use a toll-free line to access their separate voice messaging system. Field employees (district managers) rely heavily on the voice messaging system, whereas corporate employees generally rely more on the e-mail and meridian mail systems. Technology has enabled Dollar General to improve communication with field operations. With their voice messaging systems, they have the ability to transfer a message to all stores at one time, which has enhanced their ability to respond to immediate needs and helped to improve training. For example, they use voice messaging to distribute instructions about operating new equipment. The company does not have personal computers in the stores right now, but it has formed a task force to examine technology options and decide which best fit Dollar General’s needs and how to encourage the most development of that resource.

Innovative Learning Environment. Using the ten standards for judging an innovative learning environment and based on comments provided by Layne, Dollar
General promotes an innovative learning environment. The company meets eight of the ten criteria for innovation. Managers encourage members to articulate and test new ideas; the company has processes in place to promote information sharing; the organization encourages team/systems thinking and supports risk-taking behavior; it gives a very high priority to innovation and organizational learning; it develops a learning environment through training and encourages employees to share knowledge resources. Finally, senior management communicates the importance of organizational learning and knowledge management to employees. It appears that Dollar General does not have in place roles for knowledge/learning projects or incentive/reward systems in place specifically for sharing knowledge.

The company gives a very high priority to innovation and organizational learning. Senior management encourages organizational members to articulate and test new ideas—which represents a vital part of their culture. Layne (1998) referred to their strategy statement, “Least control for the most development of our niche.” They focus on giving people the tools they need to be successful and then permitting them to use those tools. When asked about various structures/processes in place to promote information sharing, Layne commented, “Actually as a part of the culture, we require information sharing. We go to great lengths to share information.”

Teamwork and systems thinking are “not just encouraged, it’s imperative. It’s a part of the culture. And not everybody works that way, and if they don’t, then they’re just not going to be successful here,” according to Layne. Through a process called team development sessions, various people from across the company will sit around a table
together to discuss an issue. Employees initiating a team will call fellow employees, explain the issue, and ask if they are able to serve on the development team.

Risk-taking constitutes another cultural element firmly encouraged by company values. Layne (1998) stated, “it’s not an environment of guilt or blame. We all know that in the Dollar General culture it’s okay to make a mistake here as long as you learn from it.” They encourage everyone to understand the impact of their decision as best they can and get other individuals and departments involved in the decision-making process.

Supervisors, department heads, and other leaders take responsibility for ensuring an environment of creativity and constant challenge. Dollar General encourages a learning environment through a continuous training program. The company encourages employees to share knowledge resources through team processes and leadership that encourage this type of behavior. Although they do not have incentive/reward systems in place specifically for knowledge sharing, they have an incentive program called TeamShare, in which individuals gain eligibility for both cash bonus and stock options by helping the company toward success in achieving goals. This overall program is based on individual performance reviews in a system where employees meet with their supervisors to discuss reviews on a regular basis—not just one a year. The employee ultimately decides on an action/development plan that will propel him or her on to future goals. Whether they choose continuing education, stopping smoking, or losing weight, this goal becomes a part of the employee’s performance review. This program, tied with the TeamShare program, encourages individuals to improve their professional life as well as their personal life.
Dollar General does not have specific roles for knowledge managers within the company. Layne (1998) explained, “We don’t have that specific position. I think we would never have that position for several reasons. Not the least of being we all do many different things…the function itself is wrapped into our jobs. We’re responsible for bringing that to the table.”

**Core Corporate Culture.** Dollar General has a very strong core corporate culture as communicated by their Web site, their annual report, their corporate newsletter, and my interview with Layne. Each employee carries a card with the values, mission statement, and strategy statement. Their mission is: “Serving Others! A better life for our customers. A superior investment for our shareholders. A partnership in total development with our employees” (Layne, 1998). Their strategy statement: “Least control for the most development of our niche” (1998). Their detailed values also appear on the back of the card:

- We believe in building our company with persons who:
  - have a living commitment to moral integrity;
  - have an enthusiastic sense of mission;
  - have a sense of humor and mature assessment of themselves;
  - model total development in their lives;
  - respect the creative potential of others.
- We believe in leadership which results in team creativity and prompt decision-making close to the action.
• We believe in hard work; we also believe in the dignity of work and in the dignity of every person.
• We believe that productivity is attained by emphasizing strengths in a positive environment, not by dwelling on weaknesses in an environment of guilt or blame.
• We believe that any success is short-lived if it does not involve mutual gain.

Layne (1998) declared, “those are not just words on a card. We all have a very strong commitment to the words on there.” Not prioritized, all of these characteristics are considered indispensable to the company and are posted in conference rooms and the boardroom. As it states in their newsletter, Dollar General Story, “whether you work in one of our 3,200 stores or in one of our five distribution centers, you can say that you are part of a family that shares a common mission and a set of values to guide you each day” ("Sam Levy Celebrates," 1998).

Layne (1998) said that Dollar General has “several different mechanisms for culture control--really getting the culture into the company,” the first of which lies in the hiring process. There is corporate involvement in the selection of every employee, from those on the corporate level, to the distribution center employees, to the district manager level. Interviews focus on discovering the individual’s values without actually presenting them with the values. Layne remarked, “Really, we all jealously guard that culture. Those of us who are involved in a human resources function scrutinize every candidate to
ensure that they hold these values. Some things you can teach. That’s one thing you really can’t teach. Either you come to the table with them or not.”

Second, they further develop these values by focusing on training and development. The development and review process allows employees to prioritize personal and professional goals and to develop an action plan to attain those goals. Layne (1998) revealed, “When somebody comes to the company, you take the whole person. So we’re committed as a company to wrapping our arms around that person and saying whatever it takes for you to be happy and successful, we want to help you do that.” Their three training programs include professional development, team development, and leadership development and help to articulate the culture envisioned by the president.

When change management issues arise, Dollar General forms committees to examine and prepare for the issue, and senior management always participates. For example, a steering committee is focusing on preparing to move both executive and administrative offices to Goodlettsville. Though Dollar General possesses a strong overall culture, management realizes that there are two distinct cultures between the two locations, as well as many separate cultures in individual offices. This steering committee is dealing with the many different aspects of this move--everything from the physical move to an employee issues communications committee that focuses on key issues. As the individual groups branch from the main committee, more and more individuals will become involved.

Role modeling represents a very serious aspect of Dollar General; it begins with their chairman and CEO, Cal Turner, Jr. According to Layne (1998), “He is the embodiment of their culture. Everyone looks up to him, models him. He is a tremendous
person. He’s that way when he’s here, he’s that way when he’s not here. He is who he is.” Senior managers must be committed to the same values. Layne commented, “Leadership is an important component of our total training as a company.”

Dollar General does not encourage any particular day-to-day rituals. Layne (1998) referred back to their strategy statement, “least control....” They have an annual company meeting where district managers, approximately 500-600 people, meet together. The 1998 meeting focused on values—what do the corporate values mean to you?

Out-of-the-norm-times of creativity and fun are encouraged among employees; however, individual departments organize their own events. Layne emphasized that he definitely encourages this activity with his Risk Management Group. The Friday before our Monday morning interview, the entire Risk Management Group went go-carting! Layne (1998) stated, “Whatever will help someone be more effective and happier in their job, we focus on.”

A continued focus through the interview and on the Web site is “simple” and relates to the strategy statement “least control for the development of our niche.” The company continually seeks to maintain its simplistic nature despite its extraordinary growth. Another main theme during the interview is company values. Layne emphasized these values in almost every response, saying that various innovative qualities are simply “a part of the culture.” The company focuses on their values and the influence these values have on their overall culture. A final focus at Dollar General concerns leadership, which is embodied in their CEO, Cal Turner, Jr. (Layne, 1998).
CHAPTER 5
DISCUSSION AND CONCLUSION

Confirming Technologies’ Importance for Innovation

As Conrad (1998) suggests, technology has become an integral part of organizations, touching every part of business operations. Each company in this research echoes this vital need for technology in today’s competitive marketplace. Though no one company encompasses all of the possible technology options, they collectively demonstrate effective use of a vast array of communication technologies. Shinn (1998) of Service Merchandise commented about technology, “It carries the base business.” Dollar General is seeing improved communication with field operations, improved ability to respond to immediate needs, and improved training. Technology reportedly enables LifeWay to speed up and work smarter.

Benson (1997) found that e-mail was the most reported form of technology for communicating. All four companies interviewed reported e-mail as the most effective means of communication. They indicated ongoing development and future deployment of various new communication technologies, confirming the need for more substantial theories regarding the effective use of new communication technologies. As companies seek to incorporate new forms of communication, they need more information to make good decisions about their use and implementation.
Cohen (1998) suggests that when used to their fullest potential, Intranets provide the ultimate application for knowledge management. Of these four companies, Ingram Book Company is the only one that has developed an Intranet. Service Merchandise and LifeWay are both in the process of developing an Intranet, and Dollar General is currently reviewing technology options such as an Intranet. Ingram enjoys great success with their Intranet. As Harris (1998) indicated, employees are “beginning to find out more and more that it can serve a viable business function. It’s gone from something that’s a novelty to a real business information, management tool.”

Ingram Book Company, Service Merchandise, Dollar General, and LifeWay all confirmed the need for developing databases for storage and retrieval of tacit knowledge. In a few instances, these companies employ knowledge sharing tools; however, they seem to have fewer processes in place for knowledge storage than information storage. As indicated in the review of literature, a distinguishable difference exists between information and knowledge. As individuals apply information and use it productively, information becomes knowledge (1994; Clarke, 1998). Davenport, DeLong, and Beers (1998) suggest that “Knowledge is information combined with experience, context, interpretation, and reflection. It is a high-value form of information that is ready to apply to decisions and actions” (p. 43). As Peters (1994) asserts, “only one in ten recognize and understand the importance of the development of knowledge--of those only one in ten do it right.”

Ingram Book Company’s Intranet stores information about available books, and they continually move in a direction where employees can gather and store information through their Intranet. They currently employ an operational system that allows
associates to store and retrieve information, and their data warehousing system extracts sales information about customers, publishers, and titles from the operational systems and stores it for retrieval.

LifeWay reported having problems getting people to contribute to a knowledge network, feeling that until people see the benefits, they will not contribute to a knowledge database. Dollar General implements a successful knowledge network where people can call to obtain helpful information. This type of structure, where people receive immediate benefits, seems desirable when establishing a knowledge network. Also, Service Merchandise’s tip screen represents another means of using technology to share information and knowledge. Each of the companies seems to have more informal than formal processes in place for sharing information and knowledge. However, they are all exploring various means of enhancing their formal knowledge sharing capabilities through knowledge management databases and Intranets.

Scharge (1990) suggests that organizations need to focus on collaboration rather than just information sharing; two surveyed companies mention this emphasis. Even though processes are not fully in place for collaboration and despite conflicting signals being sent to employees, LifeWay is experiencing a growing trend toward collaboration. Lawson (1998) indicated a “great openness toward collaboration and working together.” Dollar General emphasizes team development in their training process, and the formulation of steering committees to examine and prepare for issues provides more evidence of collaboration. Each company successfully uses some form of cross-functioning teams.
None of the organizational representatives interviewed reported having people serving in knowledge management positions in their companies, and none had incentive/reward systems in place specifically for knowledge sharing, perhaps an indication that not all companies have caught up with cutting-edge organizations that have established these types of programs. Another possibility suggests that these types of roles and systems can be merged with other job responsibilities and programs. Layne of Dollar General indicated that his company probably would never have formal knowledge management positions, because their culture makes all employees responsible for innovation and the knowledge sharing process.

These four companies are using new communication technologies in some effective, unique ways to enhance their innovative learning environment. Service Merchandise’s tip screen illustrates a unique way of sharing information and knowledge among employees. They also use e-mail to share knowledge gained from seminars and conferences attended by employees. Dollar General uses new communication technology to enhance training and to store common employee questions. LifeWay and Service Merchandise use a GroupWare package with a calendaring function that allows employees to schedule meetings with each other.

**Developing Cultural Characteristics for Innovation**

My research purpose encompassed discovering how new communication technologies work together with existing cultural assumptions to produce an innovative learning environment. Specifically, I asked under what core cultural conditions do new communication technologies seem to foster an innovative, learning environment.
Companies employing new communication technologies with more success than others should possess certain cultural characteristics (see Figure 5.1).

Figure 5.1

![Diagram showing the relationship between New Communication Technologies and Innovative Learning Environment]

**Figure 5.1.** Conceptualization of research question: How do new communication technologies work together with existing cultural assumptions to produce an innovative learning environment.

As I began to consider my results, I charted the level of new communication technologies and innovative learning environment in each company. Figure 5.2 indicates the distribution of companies by the number of criteria met for innovative learning environment and the number of new communication technologies incorporated. The chart shows that Dollar General and Service Merchandise both have innovative learning environments; whereas, LifeWay and Ingram both have less innovative environments.

It is interesting to note that Ingram scored higher in the area of implemented new communication technologies than both Dollar General and Service Merchandise, and LifeWay scored the same as Service Merchandise in the area of new communication
technology. According to Davenport (1998), "If the cultural soil isn’t fertile for a knowledge project, no amount of technology...will make the effort successful" (p. 53). My research confirms the concept that the presence of technology does not ensure an innovative learning environment.

Figure 5.2

Figure 5.2. Distribution of companies by the number of criteria met for innovative learning environment and the number of new communication technologies incorporated.
Since the focus of my research question is the development of an innovative learning environment, I considered what I could learn from Service Merchandise and Dollar General. Each of the four companies shares similar cultural characteristics. They all promote community involvement, provide certain organizational events, and promote positive role-modeling, while not encouraging specific day-to-day rituals company-wide. Therefore, I searched for the cultural characteristics present in Service Merchandise and Dollar General not present in LifeWay and Ingram Book Company that might create more of an innovative learning environment. A review of the unique characteristics of Dollar General and Service Merchandise’s cultures revealed the following ten cultural conditions that may foster their innovative learning environments.

1. **Cultural values.** Representatives of Dollar General and Service Merchandise answered questions regarding aspects of innovative learning environment by quoting one or two of their values or a strategy statement. LifeWay and Ingram representatives did not use values or mission to answer innovation questions. Both Dollar General and Service Merchandise have a concisely written set of values. In addition to stating qualities that hold great worth for the company, these values provide commentary on innovation and organizational learning.

   Ingram Book Company does not have concisely written value statements. Their two HR handbooks outline their company values for employee behavior; however, Greg reported that employees do not typically embrace these values. LifeWay also has values, which are reportedly being refined as a part of the workplace transformation project. According to Lawson, they will not change dramatically but will be improved. The main
difference between these two companies and the values reportedly held by Dollar General and Service Merchandise is the level of commitment espoused by employees.

2. Commitment to values. Both Dollar General and Service Merchandise representatives report a high level of commitment to their values. Service Merchandise has a series of core values they are especially embracing during their current transition from a catalog showroom industry to a retail format. When speaking specifically of valuing creativity and prudent risk taking Alexander (1998) said, “This is conveyed from the president down to every person on our staff.”

Layne of Dollar General spoke of jealously guarding their cultural values when hiring new employees, searching diligently for candidates possessing these values. The 1998 Dollar General managers meeting focused on values and discovering the values’ personal meanings to the managers. Dollar General’s corporate experience confirms MacMillian’s (1983) statement that dynamic and aggressive companies create and sustain a powerful set of beliefs, common to all organizational members that “shape decisions and guide behavior of company management and employees” (p. 33). Waterman (1994) also suggests that shared values give people a common sense of purpose.

3. Total development of the individual. Training is an important component of both organizations. Dollar General encourages the development of personal and professional self and encourages employees to look continually for improved ways of doing their work. Furthermore, leaders are given the responsibility to build environments of creativity and constant challenge. At Service Merchandise, employees receive incentives to enhance their own learning and to make progress, with professional and skill development available to all employees. Senge (1990) speaks of leaders building
organizations where employees are “continually expanding their capabilities to shape their future” (p. 29). These two companies are following Senge’s view of the learning organization. Cohen (1997) asserts that organizational learning embodies “an entire management philosophy designed to create an environment that fosters human understanding and creative potential” (p. 15). Dollar General especially works to create this overall environment among employees.

4. Emphasis on developing strong leadership. Waterman (1994) suggests that “a noble culture can be created by leadership from the top and sustained by leadership from every part of the organization” (p. 33). Layne reported that at Dollar General, leadership constitutes a crucial component of their total training as a company. Also, employees receive encouragement to share knowledge resources by leadership that encourages this type of behavior. Service Merchandise also stresses ongoing management training and development.

5. Shared mission. Dollar General has corporately held mission and strategy statements, which Layne quoted during the interview. At Dollar General, the mission statement remains posted on the walls of meeting rooms and employees carry the card outlining the mission and values. Everything they participate in and every decision they make apparently relates back to this focused mission statement. Service Merchandise has a corporately held mission, though Alexander was unable to quote it during the interview. Their vision, “to be the premier home and jewelry retailer,” seems to be more widely known.

6. Awareness of overall culture. Dollar General leadership possesses an awareness of their culture and cultural influence as well as the existence of subcultures. Layne
(1998) referred to this as “culture control,” which begins with the hiring of the employee and continues with education about their culture through various training processes. Dollar General seeks to maintain least control for the most development of their niche; therefore, distinct subcultures emerge, but the leadership at Dollar General maintains an awareness of their overall cultural influence and work hard to maintain it. This result confirms one of Schein’s (1994) characteristics for innovative learning environment—the encouraging of diverse but connected subcultures promotes innovation. An awareness of core corporate culture can promote unity among various subcultures and lead to an innovative learning environment.

7. Focus on employee. The training programs at Dollar General and Service Merchandise focus on the individual. Both Dollar General and Service Merchandise encourage creativity and fun as a part of employee life. In contrast, LifeWay does not formally encourage times of creativity and fun but indicates the need in developing this quality in their workplace.

Emphasis on the employee is exceptionally strong at Dollar General. Layne (1998) commented, “We all feel a responsibility to maintain that [enjoyment of work] because the company is not the building. It’s not a store. It’s the people. And so, it’s up to us to ensure that the culture continues.” On the Web site the emphasis is also evident: “At Dollar General, the listening skill involves another critical participant—our employees. All Dollar General employees actively communicate with us because of their full participation in our company’s success” (“1998 Annual report narrative,” 1998).

8. Consistency/no conflicting signals. LifeWay reported conflicting signals about innovation and risk-taking. Ingram reported “need to know” as a condition of getting
information (Shinn, 1998). Service Merchandise and Dollar General did not report these types of conflicting signals. Due to their current market transition, Service Merchandise seems to remain open with their employees about current initiatives and values. In fact, one of their values consists of “uncompromising straight talk” (Alexander, 1998). Dollar General also has an open culture, sharing with employees those things that will make the company stronger and more competitive in the marketplace.

9. Tight weaving of innovation and culture. Both Dollar General and Service Merchandise place a high value on innovation. Their senior management communicates this value to employees. It is a viable part of their culture. Both companies give a very high priority to innovation and organizational learning. Innovation is woven tightly into their culture in such a way that it is hard to tell the difference between innovation and culture. Service Merchandise values creativity and prudent risk-taking company-wide, starting with top management.

At Dollar General, articulating and testing new ideas, risk-taking, knowledge sharing, and systems thinking are all a part of the overall culture. According to Layne (1998), “It’s not just encouraged, it’s imperative. It’s a part of the culture.” As Waterman (1994) said when he spoke of the strong culture at Applied Energy Services, “there is no understanding AES without understanding its culture” (p. 112). The same is also true of Dollar General, which has an extremely solid culture.

10. Communication/support of top management. In Kanter’s (1982) study of innovation, organizational cultures in which leadership encouraged collaboration received higher ratings for innovation than those that did not encourage collaboration. Davenport et al. (1998) speak of “knowledge friendly cultures” (p. 24) in which high value is placed
on learning and knowledge sharing, and senior management communicates the importance of knowledge management and organizational learning to the companies’ overall success. In both Service Merchandise and Dollar General, senior management reportedly encourages innovation and risk-taking.

Revising research model

Schein (1994) asserts that organizational cultures must assume certain characteristics in order to be innovative. The characteristics discovered in this analysis relate closely to four of the seven characteristics posed by Schein: human activity should be proactive; human nature is neutral or good and people can improve; human relationships are based on individualism and the valuing of diversity; diverse but connected subcultures are encouraged. The information gleaned from this study creates a need for a different model of how new communication technologies work together with existing cultural assumptions to produce an innovative learning environment. Rather than culture being a means to an end, I discovered from this research that culture and innovation work closely together, and new communication technologies increase the potential for an innovative learning environment. Figure 5.3 illustrates the revised relationship between culture, innovation, and new communication technologies.

Culture leads to innovation to the extent that organizations assume certain characteristics, such as the ones identified in this research: cultural values, commitment to values, total development of the individual, emphasis on strong leadership, shared mission, awareness of overall culture, focus on employee, consistency/no conflicting signals, tight weaving of innovation and culture, communication/support of top management, and perhaps other characteristics not identified in this research.
Figure 5.3. A revised research model. Culture leads to innovation to the extent that it assumes certain characteristics, and an innovative learning environment can grow as a result of the implementation of new communication technologies.
When organizations adopt these characteristics, innovative learning environments may naturally occur. Furthermore, an innovative learning environment can expand as a result of the effective implementation of new communication technologies, such as the ones identified in this research: voice messaging, teleconferencing, Local Area Network, Wide Area Network, e-mail, Internet / World Wide Web, Intranet, Extranet, computer conferencing, computer bulletin boards, computer newsletter / publishing, online employee surveying, and knowledge management database/network for employees.

This finding explains how a company like Dollar General has already developed an innovative learning environment as a product of their culture, despite their lack of new technologies. According to this approach, when Dollar General begins to implement more new communication technologies across their organization, their innovative learning environment will grow and their capacity for innovation will naturally expand. Technology does not lead to an innovative learning environment. Rather, it enhances innovation and communication within the organization.

Service Merchandise has incorporated the cultural characteristics found in this study and has developed an innovative learning environment as defined in this research. They reportedly incorporate one more technology than Dollar General and seem to have a greater technology infrastructure than Dollar General; yet, their level of innovative learning environment is identical. Perhaps Dollar General’s extraordinarily strong emphasis on their culture and cultural values contributes to their high level of innovation despite their lack of technological infrastructure. According to my model, as Service Merchandise implements new technologies, such as an Intranet and knowledge management database, their innovative learning environment will expand even more.
LifeWay exhibits a low level of innovative learning environment, even though they implement eight of the thirteen new communication technologies (the same number as Service Merchandise). Their lack of the identified cultural characteristics may help explain their lower level of innovation. Their workplace transformation project, which emphasizes the creation of a more innovative culture, may bring about the cultural characteristics identified in this study and therefore lead to a more innovative learning environment.

Contrasting with Dollar General, which has the most innovative learning environment and the least amount of implemented new communication technologies, Ingram Book Company has the least innovative learning environment and the most technologies of these four companies (10 of the possible 13 technologies). By applying this research model, I conclude that if Ingram could experience cultural change and assume the identified cultural characteristics, then their implemented new communication technologies could potentially lead to the most innovative learning environment of these four interviewed companies. Nevertheless, an awareness of and attention to these cultural characteristics could certainly enhance innovation within their organization.

Limitations and possibilities for future research

Though this study presents worthwhile case studies that lead to new understandings of the relationships between innovation, culture, and technology, certain limitations exist. I cannot generalize my findings to all organizations. They only represent occurrences within these four organizations; however, they provide working models of the relationships between these concepts. I interviewed only one or two representatives from each of these four companies, which limits my understanding of the
company from others' viewpoints and ties me to the perspective of one or two people. However, my analysis of company publications provided reinforcement to some of the concepts presented in my interviews. The representatives with whom I spoke held varying titles in these organizations (director of administration, assistant vice president of operations/technical support, director of database administration, and director of communication). Therefore, their distinctly different views of their organizations may reflect the business unit in which they work. I dealt only with the identified, communicated core corporate culture rather than processing the multiple levels of culture(s), which exist in any organization or group of people.

Many possibilities for future research exist from these findings. It would be fruitful to study these cultural characteristics further, attempting to identify if they truly are key in creating an innovative learning environment. An interesting project could result from studying these cultural characteristics within a company that has fully established all new communication technologies and has a thriving innovative learning environment. Research would show if such a company possesses the cultural characteristics found in this study. Figure 5.3 (see page 96) intentionally lists "other" following the list of cultural characteristics. A study of other organizations may reveal more viable cultural characteristics that lead to innovation.

Further investigation into the cultures of these four organizations may result in a deeper understanding of their organizational culture. Additionally revealing would be a study of the companies currently experiencing cultural changes/transition (Service Merchandise, LifeWay and Dollar General). Are there other elements involved in the
development of an innovative learning environment (change management, transition, leadership, organizational structure, and effects of private versus public)?

Emerging patterns suggest that in these companies, certain cultural conditions lead to an innovative learning environment, as defined in this research. According to my findings in these four companies, certain cultural attributes set Service Merchandise and Dollar General apart in their building of an innovative learning environment. The following ten core cultural characteristics seem to foster innovative learning environments in these two organizations: cultural values, commitment to values, total development of individual, emphasis on developing strong leadership, shared mission, awareness of overall culture, focus on employee, consistency/no conflicting signals, communication/support of top leadership, and a tight weaving of innovation and culture.

As companies seek to improve their new communication technologies to produce an innovative learning environment, they must better understand the relationships that exist between these variables. Although technology grows even more vital to successful communication, when the core culture does not promote effective characteristics, an innovative learning environment appears unattainable. These results suggest that by concentrating on some of the most basic elements of their culture, companies may be able to ensure the sound investment in their communication technologies. However, if they attempt to implement technologies without considering the core elements of culture, management may not attain the innovative environment that all organizations should seek in today's fast-paced marketplace.
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Appendix A

Informed Consent Form

I consent to serve as a subject in the research investigation entitled: New Communication Technologies, Organizational Culture, and the Creation of Innovative Learning Environments. The nature and general purpose of the study have been explained to me by Denise Scott, graduate student, Department of Communication and Broadcasting, Western Kentucky University.

I understand the purpose of this research is to identify how new communication technologies work together with existing cultural assumptions to produce an innovative, learning environments within organizations. I also understand that the research procedures involve an interview with the researcher.

The potential benefit of this project is the knowledge gained of how organizations can integrate communication technologies with positive aspects of culture to develop innovative learning environments. I understand the results of this study will be mailed to me upon completion of the research.

I understand that my participation is voluntary and that all information is confidential and my identity will not be revealed without my consent; I am free to withdraw my consent and to discontinue participation in the project at any time; any questions I may have about the project will be answered by the researcher named below or by an authorized representative.

Western Kentucky University and the investigator named below have responsibility for ensuring that participants in research projects conducted under institutional auspices are safeguarded from injury or harm resulting from such participation. If appropriate, the person named below may be contacted for remedy or assistance for any possible consequences from such activities.

On the basis of the above statements, I agree to participate in this project

________________________________________  __________________________________________
Participant’s Signature  Researcher’s Signature

________________________________________
Researcher’s Address

________________________________________
Researcher’s Home Telephone
Appendix B
Interview Questions

I. INTRODUCTORY QUESTIONS

1. Please give a brief overview and history of your company

2. Where are your headquarters located?

3. Where are your other locations?

II. NEW COMMUNICATION TECHNOLOGIES

1. What types of new communication technologies have been incorporated within your organization?

   - Voice messaging
   - Teleconferencing (audio or video)
   - Local Area Network
   - Wide Area Network
   - E-mail
   - Internet / World Wide Web
   - Intranet
   - Extranet
   - Computer conferencing (group communication through terminals)
   - Computer bulletin boards
   - Computer newsletter / publishing (periodic messages distributed online to a large group)
1. Would you say that organizational members are encouraged to articulate and test new ideas? If so, how does your company encourage this?

2. Does your company have structures/processes in place to promote information sharing?

3. Does your company encourage work in teams and systems thinking?

4. What messages does senior management communicate to employees regarding risk-taking behavior and failure?

III. INNOVATIVE LEARNING ENVIRONMENT

1. Online employee surveying

2. Knowledge management database/network for employees (please describe)

3. Other (please describe):

2. Of these technologies, which would you say have been most effective in improving employee communication?

3. How have these technologies enabled you to improve innovation?

4. Are there any restrictions placed on employees in the use of these communication technologies?

5. Does your company have a computer network that links all employees? If not, what percentage would you say are connected?

6. Do you have a fully functioning Information Technology department that supports your organization?
5. What priority does your company give to innovation and organizational learning?

6. What are some ways your company encourages a learning environment?

7. How are employees encouraged to share knowledge resources (experience and expertise)?

8. Are there incentive/reward systems in place for sharing knowledge that tie in with your evaluation and compensation structure?

9. Do you have roles within your company in which people are serving as resource personnel for knowledge/learning projects? (Please give title or indicate if incorporated into their existing role.)

10. Would you say that senior management communicates the importance of organizational learning and knowledge management to employees? What kind of messages do they communicate?

IV. CORE CORPORATE CULTURE:

1. Does your company have a set of written or unwritten values that guide employee behavior? If so, please describe.

2. Which value would you say is most important to your company?

3. What leaders in your company serve as models for other employees? (briefly describe)

4. What is your company’s stated mission?

5. What is your company’s stated vision?
6. What would you say are some symbols that are common to the entire organization?

7. Do you have any day-to-day rituals that are encouraged company-wide?

8. Do you encourage certain organizational events?

9. Do you encourage out-of-the-norm times of creativity and fun among employees?

10. How do you communicate these themes, values, vision, etc. so that all units (geographically dispersed units or different internal areas such as sales and R&D) feel connected?