

ADAPTING CORPORATE CULTURE TO ACCOMMODATE KNOWLEDGE  
MANAGEMENT

by  
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A Master's paper submitted to the faculty  
of the School of Information and Library Science  
of the University of North Carolina at Chapel Hill  
in partial fulfillment of the requirements  
for the degree of Master of Science  
in Library Science.

Chapel Hill, North Carolina

April, 1999

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Advisor

## INTRODUCTION

The world of business has changed dramatically in the past decade. Advances in technology have made it easier for companies to generate and disseminate information and to communicate all over the world. Internationally, companies are merging with or acquiring other corporations world-wide, creating a global business arena. Employees are increasingly mobile, as is their experience and knowledge. These factors combined have created a new business world, one in which information and knowledge play a major role.

Companies are now viewing knowledge as a crucial factor to their success. They are implementing intellectual assets into their business plans and figuring out ways in which to capitalize upon those assets. How is this different from the way business is traditionally done?

The economy has changed from an industrial-based to a service-based economy in which knowledge and information are the product and the power needed to succeed. "The economic world we are leaving was one whose main sources of wealth were physical" (Stewart *xx*). The old adage that "knowledge is power" is being taken seriously today and companies are acting upon it. Today's source of wealth is intellectual capital. "Intellectual capital is intellectual material -- knowledge, information, intellectual property, experience -- that can be put to use to create wealth" (Stewart *xx*). Knowledge and information, according to Thomas Stewart, author of Intellectual Capital: The New

Wealth of Organizations, have become the new raw materials of the Information Age (Stewart xx). This change in focus from the industrial economy to the information economy has necessitated a change in the basic rules of business.

"In industrial times the basics of economics were driven by scarcity -- scarcity of resources, scarcity of products, or scarcity of demand. Today, in the knowledge economy, we have a new set of rules based on abundance, not scarcity. There is an abundance of knowledge, and it grows exponentially. The challenge, therefore, is to capture and utilize the knowledge." (Kirby and Hughes 122)

Companies are devising ways to capitalize on their knowledge assets. These strategies are often referred to as "knowledge management." The concept of knowledge management can be as varied as the kinds of businesses which employ it. There are a number of definitions, ranging from the purely technological aspect to the purely theoretical. Emphasizing a particular aspect of knowledge management, such as the technological, is a disservice to a complex and potentially empowering tool for success in today's economy. Knowledge management is much more than a database of information or an intranet site.

Simply put, knowledge management is the "processes by which a firm creates and leverages intellectual capital" (Bassi 25). To be successful, knowledge management practices must not only utilize the intellectual capital already existing in the company but

it must also foster new ideas. A more descriptive definition of knowledge management is put forth by Lucy Marshall in an article in Online Magazine:

"Knowledge management theory discusses accessing and using all information within an institution, enabling individuals to apply pertinent information to what they already know, in order to create knowledge" (Marshall 92).

This definition highlights some of the complexities of knowledge management: it is not merely gathering the information within an organization but it is also using knowledge to generate new ideas, knowledge and information that will advance the company. Another definition of knowledge management comes from Hubert St. Onge who instituted knowledge management practices at the Canadian Imperial Bank of Commerce. Mr. St. Onge sees knowledge management as the challenge of "...making an organization's unarticulated or tacit knowledge explicit so that it can be shared and renewed constantly" (Allee Training & Development 71).

For the purposes of this paper, knowledge management is defined as:

The gathering, organizing, evaluating, synthesizing and disseminating of a company's intellectual assets.

Defining the concept is only the beginning. Companies must learn how to incorporate knowledge management into the business in such a way that it is lucrative for the company. Companies already possess knowledge and intellectual assets. The challenge is not in infusing knowledge but in harnessing the knowledge already present in the company and utilizing it to foster better decision-making.

The transfer or dissemination of knowledge is "a basic requirement for any learning to take place in cooperative strategies" (Aadne, von Krogh and Roos 14). Frequently, employees are resistant to the idea of sharing what they know or the work they have done. "...[E]ven if a firm has a clearly defined and communicated learning motive, the potential for learning is highly determined by the openness of the partner (Hamel, 1991) or an appropriate atmosphere (Haspeslagh and Jemison, 1991)" (Aadne, von Krogh and Roos 14). In other words, a corporate culture must be created that allows employees to feel comfortable in revealing their knowledge and recognizes their contributions.

Thus, a major part of the process of creating successful knowledge management practices is in developing an organization that supports knowledge and information sharing. Changing the traditional corporate culture that companies have fostered means a change in the beliefs and values that constitute that culture. "A culture of learning and knowledge sharing does not happen by accident" (Allee 212). Companies must work not to contain or restrain knowledge, but to create a corporate culture that allows knowledge to flow. Allee suggests that highly regimented structure will not foster information flow. Instead, a knowledge management environment is one in which knowledge is self-organizing (Allee Training & Development 72). Allee writes in The Knowledge Evolution that "the key elements of a knowledge culture are a climate of trust and openness in an environment where constant learning and experimentation are highly valued, appreciated, and supported" (Allee 212).

How do companies create the culture and environment that is conducive to knowledge sharing? This paper will examine the following two questions:

1. What changes or adaptations must be made to the company structure and/or management in order for knowledge management to be successfully incorporated into the workplace?
2. What strategies do managers employ to create a corporate culture that is conducive to the successful implementation of knowledge management practices?

Change can be unsettling, even frightening, when what is familiar and seemingly successful is replaced by a less rigid structure in which employees at all levels are encouraged to share their knowledge and to use other employees' knowledge to create ideas and information for the company. Those companies who have had notable success in knowledge management have addressed these fears and overcome them to build vast knowledge networks. How have the traditional, hierarchical corporate structures adapted? How are employees involved? This research explores the challenges which must be met in order for companies to move into the Information Age and truly use their intellectual assets.

## LITERATURE REVIEW

The literature available on knowledge management is as extensive as is the concept. There is information available from academics and business professionals who are using knowledge management in the workplace, and consultants, to name only a few. There is a great deal written about the corporate culture and the behavioral issues that must be addressed in order for knowledge management practices to be successful in the workplace. Many of the issues require changes to the traditional way of doing business. This research focuses on a selection of the literature that explores how a company must change its management structure and corporate culture in order to facilitate the flow of information, as well as the changes in the economy and new approaches to business management.

Changes in the economy and in the business world have brought about an increased interest in knowledge management. There has been a shift from an industrial-based economy to one that revolves around technology and information. Businesses must change their focus from manufacturing and industrial assets to knowledge and information assets and the technology that supports both. In addition, businesses are forming alliances, through mergers and acquisitions, with companies all over the world. In this "globalization" of the economy, companies rely heavily on technology for all aspects of their business, particularly communication. Advances in technology have made vast amounts of information available at ever-increasing speeds, making it even more challenging for companies to get and/or stay ahead.

It is in this fast-paced, information-intensive environment that companies must learn how to remain competitive. The traditional techniques will not necessarily be successful today. "To get new and better, you have to throw out the old, outworn, obsolete, no longer productive, as well as the mistakes, failure, and misdirections of effort of the past" (Drucker 340). New tools and approaches must be employed by companies. "[T]he management community has come to realize that what an organization and its employees *know* is at the heart of how the organization functions" (Davenport and Prusak *x*). The challenge for companies is in harnessing the knowledge inside and utilizing it to strengthen the companies position in the market.

Changes in the business world have necessitated changes in managing and operating profitable companies. Goals and strategies must be re-evaluated in the context of the new global, information-based economy. Often, this evaluation results in changes in the company, changes that are necessary because the elements that the old (industrial) economy relied on, such as stability, control and predictability (Kirby and Hughes 27), are less present today than ever before. The traditional business paradigm, that of "business is war" has given way to a more cooperative model in which companies seek out input from customers, create teams and form strategic alliances within and outside the company (Brandenburger and Nalebuff 1). In the information-based, high-technology economy, companies must be able to use every available resource to keep them ahead of competitors. In order to do this, the American Productivity and Quality Center says that companies must "know what they know" (Knowledge Management Consortium 6).

Businesses must recognize knowledge as a product, "perhaps our most important product...We must focus on building knowledge -- the most critical ingredient in creating all the others" (Kirby and Hughes 121).

That companies should utilize their intellectual assets is not a new concept. "A firm's intellectual capital -- employees' brainpower, know-how, knowledge, and processes -- has always been a source of competitive advantages. So has knowledge management -- the processes by which a firm creates and leverages intellectual capital" writes Laurie Bassi. "What is new is that knowledge management and the intellectual capital it creates are the primary sources of competitive advantage in a growing number of industries" (Bassi 25).

In adapting to the changes in an economy which emphasizes knowledge building and utilizing intellectual capital, companies are faced with adapting themselves to an information-intensive environment. This is an environment in which, in order to work well, information and knowledge must be shared. "Because information represents potential power, one of the most highly developed skills -- and consequently one of the most constraining habits within an organization -- is that tendency to harbor and limit access to information" (Kirby and Hughes 76). Companies are faced with the challenge of not only gathering and organizing their intellectual assets, but they must also convince employees to participate in the knowledge management process by sharing their own knowledge and utilizing the knowledge of others. Technology makes the sharing possible but "it is naïve to assume that new technologies will automatically change behaviors. The presence of technologies that allow information sharing cannot in and of

itself change a company culture" (Allee, Knowledge Evolution 214). The mistake many companies make is in believing that once the computer networks are set up and the software installed, knowledge sharing and information flow will miraculously begin.

"Knowledge wants to happen and it happens in community" (Allee, Knowledge Evolution 218). "Knowledge is transferred in organizations whether or not we manage the process" (Davenport and Prusak 88). The organized and managed flow of knowledge and information, however, does not happen by itself. Several factors work in conjunction with each other to create successful knowledge management projects. According to the American Productivity and Quality Center (APQC), these factors are leadership, technology, measurement and culture. Culture is defined by Verna Allee as "the knowledge people hold collectively, enabling them to interpret their experience in similar ways and behave according to agreed upon norms" (211). Management must work to create and foster an environment in the company that allows information to flow freely. Human networks must supplement the technological ones to enable the company to capture and disseminate knowledge.

What makes a culture conducive to knowledge sharing and information flow? "The key elements of a knowledge culture are a climate of trust and openness in an environment where constant learning and experimentation are highly valued, appreciated, and supported" (Allee, Knowledge Evolution 212). In March 1999, the APQC concluded a benchmarking study called "Creating a Knowledge Sharing Culture: Institutionalize the disciplines of reflections, learning and thinking" from which they conclude that the

culture of an organization is an integral part of knowledge management. Employees must be convinced that sharing one's knowledge and utilizing information from a company network is good, not only for the company but also for the employees. The APQC study found that "leveraging knowledge is only possible when people value building on each other's ideas and sharing their own insights...Shared history, expectations, unwritten rules and social mores all combine into the culture which will affect behavior, decision making and the organizations' approach to markets, customers, and suppliers" (Knowledge Sharing Culture 1).

Samuel Greengard, a contributing editor at Workforce magazine and frequent writer on knowledge management, offers another list of factors necessary to the successful implementation of knowledge management (Greengard, "Reality" 90). Like the APQC, Mr. Greengard believes that leadership is key. "It's essential to ensure that senior management understands the value of knowledge management and supports the development of programs and policies to make it a reality" ("Reality" 90). It is important for managers not just to pay lip service to knowledge management projects but to actively support it in their actions and decision-making.

Next, Greengard believes that cross-functional teams must be used in the knowledge management implementation process. Teams consisting of employees from various departments with a wide range of skills will help ensure that the knowledge management project will encompass the entire company and that the information will be organized in such a way that employees can find it easily. A risk, says Mark T. Stone, director of

internal knowledge management at Arthur Andersen's business consulting division, is of "developing a system that isn't relevant to the end user because it has been designed by a few people who are focused solely on their needs" (Greengard, "Reality" 90).

Culture is a very important part of the success of knowledge management in a company. Thomas Koulopoulos, president of the Delphi Group, a consulting firm that specializes in knowledge management, says, "No knowledge management system can work without an organization undergoing a significant cultural change" (Greengard, "Reality" 90). Changes to the culture include incentives, recognition and promotions but, most importantly, there must be a climate of trust in which sharing knowledge is encouraged. Employees must "buy in" to the concept of knowledge sharing. This requires employee education and training but, ultimately, employees want to know how knowledge sharing will benefit them.

Greengard also suggests that having a knowledge management process in place is key to the successful implementation. There must be a system for gathering, organizing and disseminating the information. It must be well-structured and made clear to all employees.

Finally, Greengard writes that companies should get used to viewing knowledge management as a work in progress (Greengard, "Reality" 91). The process should be constantly monitored and evaluated and adapted when better ways of managing the firm's intellectual assets arise.

It is generally agreed upon that having a culture that supports and nurtures knowledge sharing is a vital component of successful knowledge management. Most companies do not currently have a culture that is conducive to knowledge sharing. "Sharing is *not* a strong part of the culture, despite the wide use of communication technologies," writes Thomas Stewart in Intellectual Capital. Employees are rarely recognized or rewarded for sharing what they know and often feel that they will lose out by doing so. Greengard finds that there are three cultural issues in the reluctance of employees to share their knowledge. The first is that "people do not like to share their best ideas" ("Culture" 93). It is believed that sharing one's best ideas reduces one's chances of getting ahead as others usurp ideas. The second issue is that "people do not like to use other people's ideas for fear it makes them look less knowledgeable, and that they're suddenly dependent on others to do their jobs." Finally, "people like to consider themselves experts, and prefer not to collaborate with others" ("Culture" 93).

Changing this culture that supports the hoarding of knowledge is not an easy task. The APQC purports that certain things are necessary in order to transform a culture. They are similar to the factors necessary to institute knowledge management. Strong leadership is needed to guide the employees and "show by example." Management must actively promote the successes to encourage the employees to take part and contribute. There must be a clearly defined process or plan in place that is communicated to the employees. And, the necessary tools must be present; for example, computer networks. (APQC Brittany Manasco)

Arthur Andersen made strides in creating its knowledge-centered culture by creating programs that included seminars and workshops (Greengard, "Culture" 93). Through this method, the company communicates its vision to employees while providing them with an understanding of the knowledge management process and benefits. At Buckman Laboratories, developing a culture that is supportive of knowledge management is a process of education and incentives. Mark Koskiniemi, vice president of human resources at Buckman Laboratories, says "We had to assist them [employees] in understanding what the system is, what it does and how it can benefit them personally. Managers had to learn they no longer can oversee the flow of information within the company; they have to help employees get the information they need" (Greengard, "Culture" 94). Buckman conducts workshops to demonstrate the benefits of knowledge management and creating forums for employees to discuss knowledge management. The discussion groups showed "management's unwavering commitment" (Greengard, "Culture" 94) to the knowledge process. Buckman does not offer financial incentives to convince employees to participate. Instead, it devises ways to recognize those employees who do contribute and entice them to continue. For instance, there was an event at a resort for those employees who had contributed useful information. At the meeting, the employees worked on new knowledge management strategies, listened to a presentation and received gifts of computer accessories. Following the meeting, participation in discussion forums at Buckman increased and has not dropped off (Greengard, "Culture" 94).

Before embarking on a mission to change a company's culture, management must examine the culture that already exists within the organization. The core beliefs and assumptions of an organization are "particularly influential because they are often invisible to people in the organization" (APQC, Knowledge Sharing Culture 4). Instead of working to change these core beliefs, which can be very difficult, companies should construct their knowledge management projects so that they incorporate and work with the core beliefs of the organization.

Management must also construct a clear plan, complete with desired results or goals, for its knowledge management project. The APQC found that "sharing knowledge is more likely to become embedded in people's behavior when it is tied to strategic business goals" (APQC, Knowledge Sharing Culture 2).

The traditional structure of an organization, the hierarchy, is not always conducive to successful knowledge management. The lines between job functions and status become blurred as information flow and knowledge sharing become part of daily work. Stewart writes of the change in management structure: "Where once there were pyramids, bosses, departments, troops, now there are webs, nodes, clusters, flocks. In companies whose wealth is intellectual capital, networks, rather than hierarchies, are the right organizational design" (Stewart 182). He likens the new structure to the flight patterns of geese. "Geese on the wing form a V, but their leader has no special authority, and cedes his place if he tires or the flight changes direction" (Stewart 181). While perhaps it is not advisable for companies to relieve its managers of their leadership responsibilities, it is

beneficial to consider the possibility that not only senior management has ideas and innovations that can steer the company towards greater success and profits.

Davenport and Prusak note that for the "free flow of information to prevail, the organization culture must be extraordinary" (109). Chaparral Steel, for example, considers every employee a knowledge worker. "Ideas come from everybody in the organization. A visitor to Chaparral once noticed that the security guard was reading a textbook about steel-making. There is no division of knowledge labor designating some people as thinkers and relegating others to doers" (Davenport and Prusak 109). At Chaparral, the authors note,

"the organizational structure is remarkably flat, both officially and symbolically. The company has a unique apprenticeship program for all production workers that includes both classroom and on-the-job training. Risk taking is encouraged. Employees are selected for their ability and their attitudes about learning. There are no time-clocks, and there is a generous profit-sharing system. These cultural and organizational approaches clearly encourage Chaparral's workers to gain and share knowledge" (109).

Commitment and leadership of management is crucial. The APQC discovered in their study, "Creating a Knowledge Sharing Culture", that "the behavior of leaders, particularly senior leaders, often has a strong impact on others in the organization" (APQC, Knowledge Sharing Culture 2). Managers must teach by showing and doing themselves. Stewart writes that "the greatest challenge for the Information Age manager is to create an organization that can share knowledge" (Stewart 184). The roles of managers change as knowledge sharing becomes a reality. It is difficult for managers to control the flow of

information because it is traveling through computer network and informal human networks, from the top of the organizational structure to the bottom and from the bottom to the top.

"Surely, knowledge management can toss the entire hierarchical structure into disarray. That's because KM isn't only a top-down system designed to fuel decisions by senior executives. It's also a bottom-up and peer-to-peer tool that seeds an organization with intellectual capital, and this is foreign ground for most organizations" (Greengard, "Storing, Shaping" 84).

Stewart believes that basic management jobs must be done differently (Stewart 184). Managers must learn how to help employees find the information they need. There is "less supervision of the content of the work, more supervision of an employee's overall performance and career," says Susan Falzon from CSC Research & Advisory Services (Stewart 184).

Managing in a knowledge-focused organization calls upon an "unusual mix of technological, psychological and business skills" (Davenport and Prusak 112). Managers must be able to communicate not only with employees from their own departments but with employees from other departments who will likely be working on cross-functional teams led by managers. Other ways to involve senior management in the knowledge management process and get their buy in is the technique used by Sequent Computers, a systems-integration company. The electronic library team at Sequent Computers requested senior executives to " 'map the revenue value chain' (the key processes that made Sequent money) and then identify where there were gaps that better knowledge could fill" (Grayson and O'Dell 24).

For some companies, their new organizational structure calls for a knowledge leader. "Companies that are serious about knowledge often create formal knowledge-management functions. A knowledge leader sets the course and attends to the knowledge creation process" (Allee, "Twelve Principles" 72). Monsanto has a "director of knowledge management" and Philip Morris has a "knowledge champion" (Allee, "Twelve Principles" 72). These leaders help guide the knowledge management process and keep the company's goals in sight as they continue to elicit new ideas and knowledge from employees. Davenport and Prusak outline the role of the knowledge leader (or "chief knowledge officer"). Among the responsibilities of the chief knowledge officer/leader are three of particular importance, according to the authors. They are "building a knowledge culture, creating a knowledge management infrastructure and making it all pay off economically" (115). The chief knowledge officer/leader is responsible for overseeing the management of the firm's knowledge so that it is utilized to the utmost advantage. For some companies, chief knowledge officers "act as intermediaries between employees and incoming information" (Hibbard and Carrillo 49). Ogden Forbes, the chief knowledge officer of Shopping.com, an online consumer goods store, says his role is to "monitor high-quality data flowing in, identify the data, and know who in the company might need and be able to use the data" (Hibbard and Carrillo 50).

When working to create a culture of knowledge sharing, one of the most volatile and vital factors is the human element. The employees must be involved in the process. They must buy in to the concept of knowledge sharing. "A firm can begin to foster a

knowledge culture in part through such means as education, incentive programs, and management example" (Davenport and Prusak 115).

In order to create the open environment in which employees feel comfortable sharing their knowledge and using others' knowledge, an atmosphere of trust must be developed. "If I don't trust my co-workers, I can have all the collaborative technology in the world, but collaboration is not going to happen," says Scott Smith, managing principle of Global Knowledge Management Consulting Services at IBM. "Knowledge management strategies require the right technology and a corporate culture that encourages employees to share information with one another" (Information Week 113). Lack of trust within an organization can cause a knowledge management project to fail. Building trusting relationships between employees and managers and employees and other employees will be instrumental to the success of the knowledge management process. Davenport and Prusak suggest that face-to-face meetings and direct contact with other employees help build trusting relationship and foster confidence in sharing knowledge (97-100). Allee suggests that working together, in groups or teams, also helps build trust within the organization (212).

British Petroleum uses two processes to help build trusting relationships between its employees and develop the kind of knowledge sharing behavior it desires in its employees (Currie 4). The first is the peer-assist process. "A business unit or team that wants to leverage the knowledge of peer professionals within BP initiates the peer-assist process" (Currie 4) in which professionals with similar experience or interests advise the

team. Employees from different departments can be involved in a variety of teams, which develops both learning and sharing skills. "The idea is that people are much more willing to share with peers and less likely to be offended by criticisms from equals than they would be if bosses were in the group" (Currie 5).

The second process implemented by British Petroleum, the after-action review, a concept borrowed from the US Army, team members answer the following four questions:

1. What was supposed to happen?
2. What actually happened?
3. Why are they different?
4. What is the learning?

BP uses the after-action review for both relationship building and information about the learning and knowledge sharing process (Currie 5).

Creating an environment in which employees trust each other enough to share their knowledge is one aspect of the atmosphere needed in the knowledge management process. Employees must also know that they can trust their managers. Managers must believe in the knowledge management process and convey that belief and conviction to their employees. Drucker writes that "the final requirement of effective leadership is trust... Trust is the conviction that the leader means what he says" (Drucker 122). "A leader's actions and a leader's professed beliefs must be congruent, or at least compatible" (Drucker 122).

Thus, trust helps create an environment in which employees feel comfortable to share what they know. Trust does not, however, provide the *motivation* for employees to share what they know, to contribute to the knowledge pool, or to seek out others' valuable information. Other techniques are employed to entice employees and get their participation in the knowledge management process.

"Knowledge," write Davenport and Prusak, "being intimately bound up with people's egos and occupations, does not emerge or flow easily. Employees must therefore be motivated to create, share, and use knowledge" (158). Companies must seek long-term motivations for its employees. If a company offers financial incentives that cannot be sustained as incentive to employees, the basis for the participation will be the money and the knowledge management process will fail. Davenport and Prusak note that the "motivational aids cannot be trivial" (158). They give examples of project managers who used incentives that ultimately failed. One manager offered frequent-flier mileage for perusing or contributing to a discussion forum. The miles were suitable to get some initial activity but did not sustain that activity on the forum. Another manager "offered chocolate-covered ice cream bars -- admittedly a premium brand -- to any expert who contributed a biography to the system" (Davenport and Prusak 158). This incentive proved to be insufficient to work for very long.

Employees participate and contribute to the knowledge network to a greater degree when rewards and/or recognition are used. "Successful knowledge sharing also requires being linked to a company's reward system, such as Federal Express's pay-for-knowledge

program" (Allee, "Twelve Principles" 72). Davenport and Prusak recommend that companies tie knowledge sharing in with the evaluation and compensation structure (158). Consulting companies Ernst & Young and McKinsey and Co. consider the knowledge a consultant contributes to the company and that consultant's human networks in the employee's evaluation.

High-visibility recognition is another way companies entice employees to share knowledge. Companies can acknowledge their employees contributions in the way that Buckman Laboratories did, with a conference at a resort. Or, the recognition can be in the freedom to share knowledge outside of the company. Genentech allows its scientists to publish their findings in journals immediately rather than waiting the traditional two years. This allows the scientists to be recognized in their fields.

"This policy of openly sharing knowledge has yielded extraordinary results. Genentech ranks fourth among research institutions in molecular biology and genetics. The company also insists that researchers spend 25 to 35 percent of their time on their own projects. This does more than lure top minds, it also propels them to do great work. What really drives highly-educated knowledge workers is pride in accomplishment" (Allee, Knowledge Evolution 214).

Incentives do not have to be monetary. A knowledge sharing culture is one in which employees are actively encouraged, by example or company policy, to explore. Minnesota Mining and Engineering (3M) allows their engineers to spend 15% of their time of their own research (Allee, Knowledge Evolution 214).

Another way to motivate employees to be involved in the knowledge transfer process is in marketing the knowledge sharing message to customers (Trussler 17). "This adds

market pressure to use and contribute to the knowledge base and makes it obvious that the management stands behind it" (Trussler 17). The APQC has discovered that "there is no one right set of motivators to encourage people to share insights and build on the ideas of others (Knowledge Sharing Culture 4). The incentives a company uses must match the company's values and goals and fit with the culture the company has created.

The APQC concluded that the strongest motivators are:

Alignment with the current culture: By linking with a core company value, matching the look and feel of other organizational processes, and building on the value of collaboration, best-practice organizations make sharing knowledge a natural step.

A practical purpose to share: Organizations share knowledge to achieve a business goal or solve an important problem. Moreover, the value to the individual who uses the knowledge is actively and directly reinforced. This is done by rewarding people for contributing to the knowledge base or building knowledge sharing into everyday work processes. (Knowledge Sharing Culture 4)

Throughout the literature reviewed for this research it is clear that while companies must make changes and adaptations, there is a certain degree of flexibility allowed for in the adjustments. In order for a knowledge management project to work, it must fit a company's goals and objectives. "An information-based organization must therefore structure itself around goals that clearly state expectations and objectives both for the enterprise and for each specialist" (Drucker 331). Some self-examination is necessary in order for companies to determine what knowledge management approach will best work for them. Managers must be willing to relinquish some of the control found in the traditional business model and facilitate knowledge sharing by creating an environment of learning, exploration and sharing. Organization employees might view the changes as

upheaval and balk at the thought of examining, evaluating and adapting. The traditional corporate structure and environment must be up-dated to a knowledge-based structure and environment so that companies may remain competitive and profitable. "There are enormous opportunities, because change *is* opportunity" (Drucker 35).

## RESULTS AND CONCLUSIONS

"The 'question' of knowledge management...is posed in different ways. Some management questions stem from traditional thinking...Other people view knowledge Knowledge Evolution 9).

The techniques and strategies used to implement knowledge management into an organization are as diverse as the number of definitions of knowledge management. The approach used to gather, organize, share and utilize knowledge and information must suit the organization's goals and objectives and fit the organization's established identity. There is no one "right" way to implement knowledge management. This a part of the challenge organizations face with knowledge management: how to incorporate knowledge management in a way that is "right" for this particular organization. The literature on implementing knowledge management indicates that certain factors such as a "climate of trust and openness" (Allee, Knowledge Evolution 8), employee incentives, and a "flat, networked organization" (Stewart 192) play an important role in the success of knowledge management projects. How organizations choose to address these and other factors, however, varies depending on the company and its knowledge management goals.

This case study examines how three organizations utilizing knowledge management to varying degrees create a knowledge sharing culture and facilitate the flow of information within each company. The data collection method was interviews with knowledge

workers at three corporations. Knowledge workers involved in knowledge management projects in each company were asked a series of questions about their respective projects, its conception and implementation, challenges encountered and strategies for overcoming resistance to knowledge sharing. The interview questions used in this research are listed at the end of the study.

The knowledge worker from Company A is the manager in the information center at a newspaper in a southeastern city. The information center created and maintains an intranet site designed primarily to support the newsroom staff. The site contains links to government sites, statistical databases, lists of the center's information resources, the paper's full-text archives and an 'experts database' listing the newspaper's employees and topics in which they consider themselves to be knowledgeable.

Company B is a life sciences company, part of a large firm well-known for its knowledge management activities. The knowledge worker from Company B maintains an intranet site for a global group of 150-200 employees, primarily healthcare professionals. The group creates and distributes tool containing scientific information used to influence healthcare decisions and standards of care. The site provides employees with information about the department, such as organizational charts, list of employees and the mission statement. Also, included on the site is regulatory information vital to employees working in the pharmaceutical industry, links to online resources to which the company subscribes, information about the industry, and relevant news and links to important internal sites.

The knowledge worker from Company C, a global telecommunications company, is referred to as a "knowledge strategist." The company employs several knowledge management tools, including intranet sites and a web-based project space for group work and teams which allows group members to access documents, participate in discussion forums, email notification of changes to a project and includes a news channel so that group members can post announcements.

All three companies use intranets as a primary knowledge management tool. Employees at the companies rely heavily on email to communicate. The pervasiveness of technology makes intranets a suitable option for knowledge sharing. Intranet sites provide access to vital information that give a company a competitive advantage. Employees are comfortable with the technology and already turn to the computer for communication. This is beneficial as the challenge of overcoming employees' fear of technology is not an issue. Employees have been acclimated to information technology. The challenge often is convincing them to use the intranet site as participants and contributors. The knowledge worker from Company B notes that instituting a culture change conducive to knowledge sharing has been more challenging than setting up the intranet.

Management plays an important role in creating a knowledge culture. Particularly in large organizations, a hierarchical corporate structure does not facilitate the flow of information. "The flat, networked organization triumphs because the underlying economics of communication and control have changed in favor of small, flexible

organizations, not big ones" (Stewart 192). Technology makes communication faster and easier. An appropriate corporate culture makes employees want to share knowledge and utilize the company's intellectual assets. A fundamental issue, notes the knowledge worker from the telecommunications company, is changing management. One of the foci in this company is changing the way work is done, emphasizing a holistic approach in which the company utilizes to the greatest extent all of its intellectual assets.

In the pharmaceutical industry, speed is of the essence. To enable employees to share vital information quickly, the organization's corporate structure is decentralized - "each group does what is useful," notes the knowledge worker. The corporate structure at the newspaper has not been affected by knowledge management. The newspaper's staff is significantly less than that of either of the two global companies also included in this case study. Also, much of the newsroom staff's work is by nature individualistic and not conducive to teams. Therefore, changing the traditional structure will not necessarily benefit this organization. Other strategies are employed by the manager of the information center to encourage employee participation in the knowledge management project.

All three representatives agree that key to creating a culture of knowledge sharing is having support from senior management. Company B enjoys very strong management support from the very upper echelons to the head of the department in which she works. Management must be committed to knowledge sharing in order for the groundwork to be laid for employees to be convinced to participate. In the newsroom (Company A), new

employees receive a memo from the department's head, asking them to contribute to the 'experts database.' Support from senior management is apparent in the funding that the information center receives. In addition, the manager is very active on teams consisting of employees from other departments, revealing an appreciation for the value of the information center's resources. In both cases, however, senior management infrequently utilize the knowledge management tools. It is noted that senior management often "talk the talk, but don't walk the walk." There is verbal support for knowledge management, but often members of upper-level management are not active in participating in knowledge sharing. It is unclear whether they are getting information from other personnel who are utilizing knowledge management tools or are simply continuing to resort to traditional, inefficient ways to gather information. What is clear, however, is that when senior management personnel participate in knowledge management projects, other employees appear more likely to follow suit. Senior management in the marketing department of Company B frequently publish work on the intranet. Using that as a motivator, the knowledge worker is able to garner the participation of other employees.

Management level employees from Company C are involved in implementing knowledge management into the organization. Not only do they develop and oversee knowledge management projects but, in some cases, they are responsible for getting employees in their departments to "buy in" to the practice.

Getting the employees involved with sharing knowledge and utilizing knowledge resources is a major challenge. It often requires a change in the corporate culture. In

traditional business environments employees tend to isolate themselves intellectually from peers and to hoard information rather than disseminate it widely. In a knowledge sharing environment, employees feel comfortable sharing information, recognize it as an important part of their jobs. Fostering the knowledge sharing environment can be difficult, depending on the type of culture the company has had. Organizations can demonstrate commitment to developing a knowledge sharing culture by emphasizing to employees the importance of education and learning. A common method used to promote knowledge management tools while also stressing the importance of learning is conducting training sessions. The newsroom staff is invited to "brown bag lunches" at which new tools, databases or additions to the intranet are introduced and demonstrated. This gives the information center manager the opportunity to show how the intranet can benefit the staff.

At Company C, one-on-one meetings are held with key management personnel to secure their participation. It is then incumbent on those management personnel to promote knowledge management projects and get their employees on board.

Training sessions are also held at Company B, however, the scientists are often too busy to participate. For the knowledge worker from this company, it is easier to speak personally with employees to get their involvement. Stopping employees in the hallway, mentioning the intranet in conversation and at every opportunity in meetings allows the knowledge worker to convince employees by directly addressing their concerns and needs. Because trust is a vital component to the knowledge sharing culture, personal

interaction helps add a human aspect into the knowledge management concept. As the representatives from Company B and Company C note, knowledge management is not just about technology but also includes human resources, work processes and communication. Face-to-face conversations can pinpoint an employees' concerns and hesitations and enable a knowledge worker to emphasize knowledge management as the *employee's* tool as opposed to a new fad in which the boss is interested. The knowledge worker from Company C believes "knowledge management is about people and process first." The knowledge management tool must address the needs of the employees.

Not one of the companies interviewed use financial incentives to reward employees for contributing to the knowledge base. The knowledge worker from Company B does encourage employees to publish findings on the intranet and recognizes the contributions of those employees who do participate. Getting employees involved in creating and publishing content on the intranet site makes them feel as if they own it, notes the knowledge worker. There is a sense of pride when an employee sees something s/he has written on the intranet. Stewart recognizes that, in the Information Age, organizations rely much more on their employees' knowledge. In order to get employee participation and contributions, organizations must "create a sense of cross ownership between the employee and company" (101).

Knowledge management is an organic process, continually changing as the needs of the company and its employees change. The traditional corporate environment, with its hierarchical structure and emphasis on individualism and stability, will not support

knowledge management. Knowledge management processes evolve as knowledge is shared and information flows throughout the company. Changes in the economy, such as the globalization of the marketplace and the emphasis on knowledge and information, make it necessary for organizations to focus on what they know rather than what they own (Davenport and Prusak *xiii*). In order to remain competitive, companies must require their employees to focus more on the "global" perspective, rather than on the individual, as had been the corporate custom. This cultural shift takes place over time, as both management and employees learn how to utilize an organization's intellectual assets to strengthen its position in the market. When incorporating knowledge management into an organization, there are many issues that must be addressed. The corporate culture is but one facet. It is, however, a vital component. Without an environment that supports the flow of information, organizations run the risk of under-utilizing their most valuable resource, the knowledge within the company.

## APPENDIX

### Interview Questions

The following questions were included in the interview:

1. What is your position/title in the company?
2. What types of knowledge management projects are employed in your department/company?
3. How long have these practices been in effect?
4. Did the decision to implement knowledge management practices come from senior management or was it a product of a departmental decision?
5. What was/is your involvement in process of incorporating knowledge management into the workplace?
6. What is the desired goal in utilizing knowledge management?
7. What processes were involved in designing and implementing knowledge management practices?
8. Who was involved in the planning and developing of the program (employees at the managerial level or employees from a range of employment levels)?
9. What challenges have been encountered in the process of implementing knowledge management?
10. What has been employee reaction? What is the level of participation?
11. What alterations were made in order to accommodate knowledge management?
12. What steps were taken to get employees to participate and contribute to the knowledge management process?
13. Are incentives (rewards, recognition, money) part of the strategy to get employee participation?
14. What aspects of the day-to-day operations are affected (positively or negatively) by implementing knowledge management?

15. What changes, if any, have been made to the corporate policy, managerial techniques, corporate environment in order to accommodate knowledge management?
16. Has the use of knowledge management practices had the desired affect?
17. Are you satisfied with the way your department/company currently utilizes intellectual assets?

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