AN ASSESSMENT OF THE RELATIONSHIP BETWEEN ORGANIZATIONAL CULTURE
AND CONTINUOUS KNOWLEDGE MANAGEMENT INITIATIVES

by

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Abstract

The purpose of this research study was to assess the relationship between e-business organizational culture types and continuous knowledge management initiatives in an e-business organization in the transportation industry. This research study provided the foundations and conceptualizations of technologies, people, and knowledge within the context of a single case study of 31 sales professionals. The two-part sequential phase of grounded theory included triangulation through the collection and analysis of quantitative data from a questionnaire followed by the collection and analysis of qualitative data from interviews, observations, and documents. The quantitative design entailed three survey instrument components: a Demographic Respondent Profile, an Organizational Culture Assessment Instrument (OCAI), and a Knowledge Management Assessment Instrument (KMAI). The Competing Values Framework (Quinn & Rohrbaugh, 1983) provided discussion to understand how an e-business organization may improve value creation. The results of conducting this case study may help in determining if knowledge management initiatives will be beneficial and advantageous to an e-business organization determining a specific organizational culture type(s) and implementing knowledge management initiatives. In the right organizational culture, knowledge management may be an effective strategic initiative that enables long-term success, enhances value, and helps to increase an organizations competitive advantage.
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CHAPTER 1. INTRODUCTION

Background of the Problem

As the Internet has evolved into a powerful e-business channel, the rapid growth of the medium has changed the mode in which e-business is conducted. The Internet provides new methods and opportunities to those willing to embrace the challenge (Hargrove, 2001). Internet utilization includes all the applications and processes to make it possible for organizations to conduct business transactions. In addition to the support e-business provides e-commerce, e-business also consists of both front-end and back-end applications to create the basic foundation for business in today’s era (Kalakota & Robinson, 2000). According to Kalakota and Robinson, “e-business is not just about e-commerce transactions or about buying and selling over the Web; it’s the overall strategy of redefining old business models, with the aid of technology, to maximize customer value and profits” (2000, p. 5). According to Amit and Zott, “academic research on e-business is currently sparse” (2001, p. 494). The literature and research to date has neither articulated the significant matter related to this new phenomenon (Amit & Zott, 2001), nor has it developed theory that captures unique organizational culture and knowledge management practice characteristics that may add value to an organization.

If a company understands the relationship between e-business organizational culture and continuous knowledge management initiatives it may provide long-term benefits, enhance value and success to their e-business organization, as well as lead their organization to competitive advantage. This research investigated a case study to better understand the relationship between e-business organizational culture and continuous knowledge management initiatives among 31 sales professionals within an e-business organization within the transportation industry.
Knowledge management practices are now widely recognized as a competitive advantage, and more e-business organizations have incorporated knowledge management strategies into their organizations (Ambrecht, Chapas, Chappelow, & Farris, 2001; Bell, DeTienne, & Jackson, 2001; Buckley, & Carter, 1999). In order to be successful and competitive within the e-business evolution, e-business organizations need to consider adaptive and intelligent strategies, including knowledge management processes and practices.

E-business organizations also need to understand the significance of people and organizational culture in relationship to knowledge management initiatives. Some organizations may even have cultures that inhibit knowledge management practices. If workers within an organization seek knowledge that is important for the overall good of an organization, a knowledge-network culture will support the worker and the company well (Figallo & Rhine, 2002).

The Competing Values Framework, developed by Robert Quinn and John Rohrbaugh (1983), was used to determine organization culture types and how they could be related to knowledge management initiatives within an e-business company. The first phase of the two part sequential explanatory strategy included quantitative data that was collected and analyzed from a questionnaire that utilized three components: a demographic respondent profile, an Organizational Culture Assessment Instrument (OCAI) developed by Cameron and Quinn (1999), and a Knowledge Management Assessment Instrument (KMAI) developed by Lawson (2004). The second phase included collection and analysis of qualitative data from interviews, observations, and documents. This two phase sequential strategy and mixed methodology approach did generate inferences that may provide significant value to sales managers and sales professionals in the e-business organization under study, as well as other e-business
organizations that employ sales professionals, particularly in the transportation industry, as they continue and plan to implement knowledge management initiatives within their e-business organizations. The results of this data did provide important information to better understand key relationships to the type of culture and the correlation it has on knowledge management initiatives within an e-business organization.

Background of the Case Study

Knowledge management practices vary from emphasis and use of technology to search, store, capture, disseminate knowledge to other knowledge management objectives that may focus on knowledge sharing among individuals, learning through creation, education, and knowledge distribution capabilities (Liebowitz, 1999). The use of a variety and different types of knowledge management practices in e-business environments may promote decentralized communities and the development of decentralized culture which may result in a social effect of increased access to information and knowledge that is most dramatic in the reduction of hierarchy (Lipnack & Stamp, 2000). In addition, e-business organizations have shifted toward a knowledge economy of created companies that are nimble, adaptive, flexible, and innovative. Through multi-skills and connections of communications, organizations have changed to quickly react to market changes and competition, and adapted to market needs. E-business organizations are very flexible and deal with properties that can mean bend without a break, which tends to occur within many organizations. Change, through innovation, occurs from technology, people, and markets, and entails the ability to apply knowledge to adapt to new markets quickly with flexibility (Prusak, 1995-2001).
The e-business organization, whose name is withheld by management request, under this case study included sales professionals within a transportation industry. The study introduced knowledge management initiatives specifically tailored to meet sales professional’s needs, environments, and perspectives. This case study provided a better understanding on how knowledge management practices provided value to sales professionals in a specific organizational culture type within an e-business organization in the transportation industry.

Statement of the Problem

Many views and developments have materialized from knowledge management initiatives that have improved the value of e-business organizations. To continue growth and become even more successful, e-business organizations and e-business leaders should consider continual evaluation of knowledge management strategies and best practices (Davenport & Prusak, 1998). E-business leaders and key management staff should also understand the relationship between culture types and knowledge management initiatives. All e-business organizations have the opportunity and ability to create strategies, including knowledge management initiatives, positioning their organizations competitively, and transforming their organizations through practices, concepts, and functional aspects (Davenport & Prusak; Malhorta, 2001).

Knowledge Management Initiative

Knowledge management is one initiative within an organization where success depends on the support of the whole organization. In order for knowledge management to make an impact within an e-business organization, there must be individuals within e-leadership roles, or a chief knowledge officer, who influence an organization’s culture and the way the organization conducts e-business. With this support, knowledge management practices and initiatives progress
quickly and benefits become apparent much faster. Knowledge management affects the way people work, value systems, and management styles and organizations need to consider knowledge management within their organizations for long-term return (Liebowitz, 1999). The e-business organizations that are going to succeed and generate growth need to better understand knowledge management initiatives and the type of organizational culture that impacts and increases their value (Davenport & Prusak; Malhorta, 2001).

Purpose of the Study

According to Davenport and Prusak, “companies hire for experience more often than for intelligence or education because they understand the value of knowledge that has been developed and proven over time” (1998, p. 12). "Explicitly recognizing knowledge as a corporate asset is new” and “the need to make the most of organizational knowledge, to get as much values as possible from it, is greater now than in the past” (Davenport & Prusak, 1998, p. 12). In addition, knowledge is known to be an organization’s greatest asset; therefore for a company to fail to generate knowledge may be a reason for an organization not to exist (Davenport & Prusak, 1998). The objective of knowledge management initiatives is to leverage and utilize uniqueness and to capitalize on the variety of people, processes, and services within the e-business organization. In addition, four prerequisites to consider during the implementation of knowledge management that can enhance the likelihood of success are: executive leadership and commitment, a healthy culture, expertise, and information technology (IT) infrastructure (1998). According to Beckman (1998), several challenges to the implementation of knowledge management in a typical organization can occur. First, knowledge is often hoarded instead of shared and second, valuable knowledge developed by employees is often ignored, rather than
incorporated into daily work. Corporations also often fail to recognize or measure intellectual assets—knowledge and expertise are often not valued by corporate culture. Finally, employees who share knowledge and expertise are considered naïve, rather than rewarded for valuable contributions and valuable organizational behavior (Beckman).

Management, e-business leaders, and chief knowledge officers must, if needed, change the existing culture and mindsets so that employees are receptive, supportive, and committed to the principles of the knowledge organization. Outstanding leaders need to gain the hearts and the minds of workers by creating a cultural style and by providing good knowledge management (Tiwana, 2000). The role of knowledge leadership consists of promoting a constructive cultural direction toward knowledge acquisition and knowledge sharing, a culture that values continuous learning, and where experience, expertise, and innovation take over from hierarchical cultures and bureaucratic environments (Davenport, Delong, & Beers, 1998).

The skill to learn is considered to be organizational when ideas and knowledge generated by individuals within an organization are shared across organizational boundaries of space, time, and hierarchy. While individuals within an organization often generate good ideas, no impact is dispersed if ideas are not generalized, used to expand on, or revised by other people, units or functions. Managers who want to build learning organizations must concentrate on both individual and organizational learning. Individual learning occurs as members within the organization gain knowledge through education, experience, or experimentation (Yeung, Ulrich, Nason, & Von Glinow, 1999). To learn, the modern organization has achieved a new kind of internal structure and process evident by flexibility of style in its leadership and through empowered contributions from its membership. Organizations are constituted to learn, grow and
change, as opposed to traditional bureaucratic models that consist of stable and predictable operations (Vaill, 1996). Training and education are extremely important to the knowledge management process. Organizations need to understand what individuals need to learn, how people learn, and what really needs to be done to take ownership of the development process. To determine the kinds of information and what types of knowledge organizations want to impart on people is vital to success (Rasmus, 2002).

It is imperative to have executive leadership and commitment, a healthy culture, and expertise for success to occur in knowledge management. The hierarchy cultures, versus decentralized cultures suffer from lack of trust and failure to reward and promote cooperation and collaboration. Without trusting and properly motivating workers knowledge is rarely shared or applied, innovation and risk-taking cease, and organizational cooperation and alignment are nonexistent (Zand, 1997). Management must consider changing the existing culture and mindsets of individuals in e-business organizations to be receptive, supportive, and committed to the principles of a knowledge organization (Liebowitz, 1999).

The value of information technology (IT) through formulated and integrated concepts of knowledge representation, knowledge repositories, and automated knowledge transformation also needs to be considered in an e-business organization. In order to facilitate knowledge sharing, an IT infrastructure must be in place. Knowledge and expertise must be easily accessible, understandable, and retrievable (Beckman, 1998). According to Liebowitz (1999), a significant difference of opinion occurs about the value of IT, particularly with expert systems and other intelligent systems, versus opposition to strong agreement about the value of global
computer networks and groupware to share knowledge, which enables knowledge management to work (Liebowitz, 1999; Liebowitz, J., & Beckman, T., 1998).

The purpose of this research study is to assess the relationship between e-business organizational culture types and continuous knowledge management initiatives. If an e-business organization better understands these relationships they could potentially enhance value and ultimately provide more success to their company. This research study provides the foundations and conceptualizations of these correlation aspects (technologies, people, and knowledge) in the workplace within the context of a single case study, and is shown in Figure 1, Venn diagram.

Figure 1. Venn diagram
Rationale

An organization generates value from what is known through organizational processes of knowledge creation, knowledge transfer, and knowledge utilization. All healthy organizations generate and use knowledge through informal, self-organized networks, which over time may become more formalized. Critical to the success of knowledge generation is recognition by management that knowledge generation is an important activity for e-business success. In addition, according to Davenport and Prusak nine factors have been identified that lead knowledge projects to success: “knowledge-oriented culture, technical and organizational infrastructure, senior management support, link to economics or industry value, modicum of process orientation, clarity of vision and language, nontrivial motivation aids, some level of knowledge structure, and multiple channels for knowledge transfer” (1999, p. 153).

Understanding why knowledge management initiatives must build from strengths within unique organizational culture, identifying key aspects to knowledge success and recognizing the impact e-leadership roles have on knowledge management will shape the value of e-business organizations. Understanding key characteristics of knowledge organizations is also important. The characteristics of high knowledge organizations include: top performance, customer-driven, improvement-driven, excellence-driven, flexibility and adaptiveness, high levels of expertise and knowledge, high rates to learn and innovate, and innovative IT enabled, self-directed, managed, proactive and futurist, valued expertise, and shared knowledge (Beckman, 1998; Liebowitz, 1999). These characteristics, as well as additional research, indicates that considerable progress has been made in knowledge management; however, work still remains to fully deliver the e-business value that knowledge management promises. In order to realize the significant potential
value from knowledge management, e-business organizations must motivate and enable the creating, organizing, and sharing of knowledge (Liebowitz).

**Research Question**

This research study addresses the following research question: “How does organizational culture influence continuous knowledge management initiatives in an e-business organization?” The search for the answer to this question utilizes the Competing Values Framework (CVF) to determine the connection between the e-business organizational culture and continuous knowledge management initiatives. The four cultures types (clan, adhocracy, hierarchy, and market) embedded in the framework were assessed to establish the extent to which the culture types impact knowledge management success. Finding and understanding the answer to this research question is a vital first step and should be done prior to implementing knowledge management initiatives within an e-business organization (Lawson, 2004).

**Significance of the Study**

In the past several years an explosion of interest, research, writing, and applications of knowledge management has occurred. According to Liebowitz, “knowledge management is believed to be the current savior of organizations” (1999, p. iv), according to Choo and Bontis, “effective knowledge management is critical for the survival and progress of modern organizations” (2002, p. 433), according to Davenport and Prusak (1998, p. 52), “without knowledge, an organization could not organize itself; it would be unable to maintain itself as a functioning enterprise”, and according to Burden, “human capital is still the greatest asset within an organization” (2000, p. 85). These statements reflect the significance of this research study to e-business organizations. E-business organizations realize the importance and value of
knowledge management, and the brainpower or intellectual capital of workers and management. In addition, e-business organizations understand the consequences to leverage knowledge internally and externally within their e-business organization that will lead to competitive edge (Choo and Bontis, 2002; Chourides, Longbottom, & Murphy, 2003). The findings of this research case study using a mixed methods approach may be beneficial and competitively advantageous to the e-business organization under study, as well as to other e-business organizations particularly in the transportation industry, when assessing their organizational culture and knowledge management initiatives.

Nature of the Study

A case study utilized a grounded theory approach with a mixed methods design, and sequential explanatory strategy was used in this research study. A mixed methods design approach was determined to be the best means to answer the identified research question, provide the best way to explore processes, activities, and events (Creswell, 2003) and apply the best means to examine and understand the relationships between and among specific culture types and knowledge management aspects of sales professionals. The first phase of the sequential explanatory strategy, as indicated in Figure 2, consisted of quantitative data collection and analysis from a questionnaire that included three components: a Demographic Respondent Profile, an Organizational Culture Assessment Instrument (OCAI), and a Knowledge Management Assessment Instrument (KMAI). This survey instrument asked demographic, organizational culture, and knowledge management questions. This first phase entailed collecting and analyzing quantitative data that provided a way for the researcher to gain emerging themes
of the relationship between organizational culture and continuous knowledge management
initiatives of sales professionals within the e-business under study.

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Figure 2. Sequential explanatory design. The explanatory strategy design is characterized by the
collection and analysis of quantitative data followed by the collection and analysis of qualitative
data. 1

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The second phase of this sequential explanatory design included qualitative data collection
and analysis (see Figure 2) that provided the researcher with an in-depth understanding of the
relationship between organizational culture and continuous knowledge management initiatives of
sales professionals within the e-business under study. The quantitative and qualitative data
collected and analyzed included triangulation of data from telephone or face-to-face interviews
with account executives and sr. account executives and face-to-face interviews with sales
managers and administrators in naturalistic settings, observations, and other pertinent
documented information. A more detailed description of this case study and grounded theory
approach of sequential explanatory strategy that uses a mixed methodology design can be found
in Chapter 3, Methodology.
Definition of Terms

*e-Business.* E-business is defined as an online electronic means to carry out business activities. This can include using technology communications and training for internal or external communications. E-business may encompass use of secure environments such as intranets and extranets, wireless and handheld devices, as well as email, the public Internet, and the Web (Plant, 2000). Also, e-business is not just about e-commerce or the exchange of information about goods and services between customers and suppliers, but includes automation and the use of the Internet for the transfer of information between employees through in-house systems, between offices, remote users, and business partners, customers, suppliers and the public. According to Dictionary.com, electronic business is defined as “electronic business, any business conducted using electronic media; any business that makes some or all of its revenue via Internet technology. Most e-business is conducted using Web technologies” (Dictionary.com, para.1).

*Knowledge.* Definitions of knowledge vary from narrow to broad in scope, and range form the practical to the conceptual to the philosophical (Liebowitz, 1999). According to the Oxford Dictionary (2002), knowledge is defined as “understanding gained through experiences, observation or study” (Chourides, Longbottom, & Murphy, p. 3). Knowledge is information combined with understanding and capability that lives in the minds of people. Knowledge primarily provides a level of predictability that usually stems form recognition of patterns. Knowledge guides action, whereas information and data merely inform or confuse. It is often called the infinite asset because knowledge is the only asset that increases when shared (Groff & Jones, 2003). Knowledge involves expertise and achieving knowledge involves time. It endures
longer than information, sometimes forever. To be knowledgeable, to know a subject, is different from and greater than knowing a fact or possessing a lot of information about something (Stewart, 2001). The working definition of knowledge by Thomas Davenport and Laurence Prusak, according to Tiwana (2000), includes the following:

Knowledge is a fluid mix of framed experiences, values, contextual information, expert insight and grounded intuition that provides an environment and framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of “knowers.” In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices, and norms. (p. 5)

The key issues to instigate and know about knowledge management include: how do organizations capture, retain, and disseminate knowledge, and what important advantages may arise.

Organizational Culture. Organizations are basically a compilation of individuals and if left unattended will pursue largely individual goals. The task of management is to get people to work together for common organizational goals. This means sharing information and knowledge for the good of the organization. The advancement in IT generates improvement for better information and more opportunity to share (Chourides, Longbottom, & Murphy, 2003).

The work on organizational culture by Bontis (2001) includes the following:

The core of culture is formed by values (Hoffstede, 1991). In most organizations that have pursues formalized intellectual capital management initiatives, the common component that drives the program is value alignment. Hall (1995: viii) agrees and claims that values are the key to any successful organizational transformation because “values are basically a quality information system that when understood tell what drives human beings and organizations and causes them to be exceptional.” Another important element within the context of intellectual capital is the important distinction between “knowledge hoarding” versus “knowledge sharing.” Unfortunately, this conflict is all too common in today’s organizations with the former outdoing the latter. (p. 289)
Classifications of Knowledge

Core Knowledge

For high-level analysis of knowledge, knowledge is categorized into three classifications: core knowledge, advanced knowledge, and innovative knowledge. According to Tiwana, “core knowledge is the basic level of knowledge required just to play the game. This is the type of knowledge that creates a barrier for entry of new companies” (2000, p. 154). An organization must have core knowledge even if this type of knowledge does not provide an advantage that distinguishes an organization from the competition (Tiwana, 2000). Core knowledge, scientific or technological, is at the heart of, and forms the foundation for a product or service. Core knowledge is specific to a particular vintage of technology or state of knowledge development (Choo & Bontis, 2002).

Advanced Knowledge

Advanced knowledge is what makes an organization competitively viable. Advanced knowledge allows an organization to differentiate a product from that of a competitor, through the application of superior knowledge in specific areas. Advanced knowledge allows a company to compete head on with competitors in the same market and for the same set of customers (Tiwana, 2000).

Innovative Knowledge

Innovative knowledge allows an organization to lead the entire industry to an extent that clearly differentiates the company from competition. Innovative knowledge permits a company to change the rules of the game. Innovative knowledge today will become the core knowledge of tomorrow, so the key for organizations is to stay ahead of the competition (Tiwana, 2000).
Knowledge Management

The meaning of the term knowledge management has been debated, defined, and redefined repeatedly. Knowledge management can be described as the tools, techniques, and strategies to retain, analyze, organize, improve, and share business expertise. Traditional businesses have ensured success based primarily on the management of finite physical resources. Unlike most assets, knowledge is not depleted when shared. Sharing knowledge almost invariably results in increased knowledge for all parties (Groff & Jones, 2003). The very center of knowledge management is teamwork, a blend of skills and experience, a new approach to organizational development, and a new concentration on the management of people (Liebowitz, 1999).

According to Tiwana, knowledge management in the simplest terms means exactly: “management of knowledge. It can be extended to management of organizational knowledge for creating business value and generating a competitive advantage. Knowledge management enables the creation, communication, and application of knowledge of all kinds to achieve business goals” (2000, p. 5). Karl Wigg, likely founder of knowledge management, defines knowledge management as follows: “KM is systematic, explicit, and deliberate building, renewal, and application of knowledge to maximize an enterprises knowledge-related effectiveness and returns from its knowledge assets” (Liebowitz, 1999, p. 1-6). The Gartner Group’s definition of knowledge management is, “A discipline that promotes an integrated approach to identifying, capturing, evaluating, retrieving, and sharing all of enterprise information assets. These assets may include, databases, documents, policies, and procedures previously not captured expertise and experience in individual workers” (Duhon, 1998, p.10).

According to Tiwana (2000):
Kirk Klasson elucidates, knowledge management is the ability to create and retain greater value for core business competencies. Knowledge management addresses business problems particular to your business, whether it’s creating and delivering innovative products or services; managing and enhancing relationships with existing and new customers, partners, and suppliers; or administering and improving work practices and processes. (p. 5)

Knowledge management focuses on effectiveness more than efficiency. In Bain and Company’s 2001 Management Tools survey, knowledge management ranked nineteenth among 25 tools evaluated for effectiveness (Horwitch & Armacost, 2002). Knowledge management assumes that managers can best cultivate knowledge by responding to the inventive, improvisational ways people actually get things done. Despite the range of tools and techniques available, the success rate of knowledge management is mixed. The reasons knowledge management may fail is because of the following: firms do not sufficiently recognize that the organization is already providing knowledge management, “information technology is often regarded as a substitute for social interaction, knowledge management typically focuses too much on recycling existing knowledge, rather than generating new knowledge, and most knowledge management techniques look like traditional techniques” (Birkinshaw, 2001, p. 16).

Knowledge management assumes that value-creating activities are not easy to pin down and that organizations compete in an unpredictable environment (Brown & Duguid, 2000). Knowledge management is a field that can easily be described as having two sides: a side that tends to focus on knowledge sharing and the other that tends to focus on knowledge making. The first side (knowledge sharing) tends to tie knowledge management in with organizational learning and the second side (knowledge making) accounts for the connections between knowledge management and innovation management (Groff & Jones, 2003).
Assumptions and Limitations

The limitations of this case study used a grounded theory approach, mixed methods design, and sequential explanatory strategy, which included findings among sales professionals only within one sales district of a substantially large e-business organization within the transportation industry. Further validation and research could extend to additional sales professionals not only within this e-business organization under study, but with other employees within this company, as well as other sales professionals and employees within other e-business organizations in the transportation industry or potentially non-transportation industries. The limitation of this case study does not generalize sales professionals in an e-business organization within the transportation industry.

Another limitation to this study included potential bias attributable to the researcher, whom is employed with the e-business organization under study. To minimize researcher bias and increase reliability and validity of this research study, the researcher used a mixed methods design. In addition, data triangulation consisted of quantitative collection and analysis of data through a questionnaire, and qualitative collection and analysis of data from interviews, observations, and documents. Quantitative and qualitative collection were provided in the most naturalistic settings, which included a company onsite conference room for the questionnaire and telephone or face-to-face interviews with account executives, sr. account executives, sales managers and administrators in their naturalistic settings.

Theoretical/Conceptual Framework

This research case study assessed the relationship between organizational culture and knowledge management initiatives. This study was based on the theoretical and conceptual
framework of Competing Values Framework (CVF) developed by Robert Quinn and John Rohrbaugh (1983). The CVF is used to understand culture types and how they could be related to numerous knowledge management initiatives within an e-business organization. By using the CVF way of thinking made understanding this relationship more straightforward and unambiguous. From the CVF comes a speculation about how a variety of facets in organizations operate in concurrent synchronization and conflict with each another. The CVF provides a guideline that supports leaders to work more comprehensively and consistently to develop their e-business organizations performance and value creation. This case study may help to successfully enhance value and potentially increase the competitive advantage of sales professionals within this e-business organization under study. The inferences from this case study may also provide significant value to other e-businesses as they plan to implement knowledge management initiatives. The findings of this research study can be beneficial and advantageous to e-business organizations as they assess their organizational culture type(s) and consider implementing knowledge management initiatives. Additional CVF theory can be found in Chapter 2 of the literature review.

Organization of the Remainder of the Study

The remainder of this research study is presented and discussed in four more chapters. Chapter 2 reviews the literature related to organizational culture and knowledge management in an e-business organization. Chapter 3 discusses the case study and grounded theory approach, mixed methods design and sequential explanatory strategy used in this study. Chapter 4 presents the analysis of the data and the findings of this research case study. Finally, Chapter 5 summarizes the results, conclusions, and recommendations of this research case study.
CHAPTER 2. LITERATURE REVIEW

Chapter Overview

This literature review covers pertinent literature grouped around organizational culture and knowledge management. It places this study in a historical context, justifies the selection of the topics, assists in the selection of the research design and methodological procedures, provides assessment of previous studies, and provides theoretical framework. The chapter specifically includes e-business organizations and how they are different from business organizations, the history of knowledge management, information grouped around organizational culture, which includes the importance of managing organizational culture, a description of competing values framework (CVF) and four culture types, an examination of the applicability of competing values model, and an assessment of organizational culture profiles. This chapter also consists of literature review of the theory and two dimensions of organizational knowledge creation, knowledge management roles, and an examination of the relationship between organizational culture and knowledge management, which includes information from previous studies.

Introduction

The concept of knowledge management (KM) has developed and gained importance in the field of business management. Within the last few years, the topic of knowledge management has especially collected interest, particularly in the corporate sectors. According to Chauvel and Despres (2002):

Some ten years after its introduction, KM has a role in MBA and PhD curricula, is a key word in bibliographic databases, forms the conceptual nucleus of developing literature, is sought after by leading firms and is readily prescribed by all major consultants. Knowledge management is increasingly positioned as a viable approach to the new age of business and a growing number of professionals and academics are working to elaborate
its principles and application technologies. The developmental path that KM has followed is similar to that traced by the concept of organizational culture. Introduced to business and the academia circa in 1980, the culture concept first met with disdain, then situated itself on the fringes of respectable thought, gained adherents by demonstrating “usefulness”, advanced a research program complete with new problems and new methodologies, and was eventually admitted to the professional and academic mainstream a decade later. (p. 208)

E-Business and Business Organizations

According to Tobias, “in a few year’s time we will probably not be using the term ‘e-business’; we will all just talk about ‘business’ again because by then every business will be an ‘e-business’” (2001, p. 132). According to Amit and Zott (2001), business conducted over the Internet is referred to as “e-business.” The rapid growth of the number of businesses, particularly U.S. firms (world leaders) that use the Internet have generated an incredible global phenomenon. E-business is dynamic, and with the rapid growth generates highly competitive characteristics of e-business, which in turn promises to provide new ways for the creation of wealth (Amit & Zott). The definition of an e-business firm is very broad and one that derives a significant proportion (at least 10%) of its revenues from transactions conducted over the Internet. E-business companies also do include some companies that may not have yet aligned all of their internal business processes with the Internet, but that use the Internet only as a sales channel (Amit & Zott).

E-business should be a part of an organizations strategy for three reasons: to provide growth and globalization – the Internet provides the ability to expand far beyond an organizations geographical range, once a business goes online, the world becomes its customer, and for profitability – business is increasingly competitive and the Internet provides that ability for a company to increase profitability by increasing its range and customer base. E-business practices
create successful and profitable returns when conducting business online with goals of global market penetration. For an e-business to survive, it must be adaptable and continually seek new opportunities. E-business practices need to be considered as a long-term strategies and an integral part of an organization. “Basic business fundamentals remain as important as ever, but in every area of business the Internet offers truly amazing opportunities to transform the way you operate” (Tobias, 2001, p. 132). In addition, according to Tobias, the challenge no matter was size or age your company, “Is to understand just how the Internet can deliver real business benefits and than to make it happen” (2001, p. 132). According to Schwartzwalder, to work in the demand of an e-business organization in a global organization in the twenty-first century, “companies want knowledge management because they realize it has potential to help them use what they already know, and what they don’t, to work smarter and quicker and to make more money” (1999, p. 67).

e-Business Leaders

The new e-business leaders from all business roles share in general business insight and strong management skills. In top organizations, a visionary CEO champions e-business over the long term and leads the way to building strong relationships. CEO’s keep the emphasis on identifying clear means to online profitability and integrate e-business with core business. The few traditional companies that have successful e-business operations provide valuable lessons: integrate the new channel with other channels, build on strengths, do not let technical considerations be the leading factor in e-business decisions, and find a CIO that thinks like a business leader (Rifkin & Kurtzman, 2002).

e-Commerce, e-Business, and Knowledge Management
The broad view of e-commerce, called e-business, includes reaching business goals by facilitating value chain activities and supporting decisions through the use of technology for knowledge management. Knowledge management is considered the prime driver of e-commerce because the need for effective and efficient knowledge processed is a key contributor in the development and the existence of e-commerce. Knowledge processing may include many different aspects like human, social, and technological platforms. It is the technological factors, such as communications and computer networks that serve as the framework for electronic commerce environments. In this type of vigorous atmosphere, knowledge management has the potential to impact an e-business organizations competitive edge. If e-business organizations want to succeed, it is important for e-leaders to understand the importance in the ability to determine the state of an organization’s knowledge and how it can lead to improve organizational structure and technological infrastructure to enhance innovation and increase competitiveness (Allard & Holsapple, 2002).

History of Knowledge Management

According to Liebowitz (1999), the discipline of knowledge management is more than ten years old, and Karl Wigg (1993) one of the fields most prominent advocates was likely the founder of knowledge management. Wigg shared this term at a 1986 Swiss conference sponsored at the United Nations–International Labor Organization (Liebowitz). However, prior to 1986 in the early twentieth century, it was Frederick Taylor whom caused controversial reputation in the marketplace because Taylor referred to labor as being scientifically managed. Taylor’s remarks refers to the process of capturing, codifying, and sharing knowledge as a, “science to replace the old rule-of-thumb knowledge of the workmen” (McElroy, 2003, p. xxiv). Taylor’s reference is
known today as a formal process to capture knowledge held by individual workers, tacit or otherwise, for widespread use (McElroy).


Supply-side KM is the practice of in any way that is designed to enhance the supply of existing knowledge to workers in an enterprise. It is typically associated with two well-known phrases that have become the mantras for advocates of the knowledge-sharing side of KM: (1) It’s all about capturing, codifying, and sharing valuable knowledge, and (2) It’s all about getting the right information to the right people at the right time. These two phrases, more than any others, sum up the essence of supply-side KM, which has also come to be known as the first-generation KM. (p. xxiv)

Second-Generation Knowledge

According to McElroy, recently, a new name emerged, “Second-Generation KM (also known as, the new knowledge management). Unlike first-generation KM, in which technology always seems to provide the answer, second-generation thinking is more inclusive way of people, process, and social initiatives” (2003, p. 4). Second-generation KM introduces the “demand-side KM”, which seeks to enhance the capacity to produce knowledge. The goal of the demand-side KM is to enhance an organizations capacity to satisfy the demand for new knowledge. Second-generation KM also includes supply-side thinking and prefers to consider knowledge management in a more cyclical, holistic way. Second-generation knowledge is about knowledge sharing and knowledge making. A knowledge life cycle occurs at work in human social systems, and it is the responsibility of the knowledge manager to manage the entire cycle, and not just the parts that are of interest to an individual (McElroy, 2003).

The arrival of second-generation KM includes the introduction of new terms, new concepts, and new insights, which together give second-generation KM some real depth and distinction when compared to first-generation models. These concepts, in which there are many include the following ten (10) key ideas: the knowledge life cycle (KLC), KM
versus knowledge processing, supply-side versus demand-side KM, nested knowledge
domain, containers of knowledge, organizational learning, the open enterprise, social
innovation capital, self-organization and complexity theory, and sustainable innovation.
(p. 4)

Knowledge Age

More than two decades of research reflect that a fundamental paradigm shift has occurred and
launched business out of the Industrial Age and into the Knowledge Age (Davenport & Prusak,
1998; Drucker, 2001; Malhorta, 2001). Knowledge Age organizations embrace chaos and
complexity, are knowledge based, virtually organized, and operate within flexible, often
unpredictable, business models (Williams, 2003). Emerging research indicates that in order for
organizations to succeed in the 21st century Knowledge Age, an e-business must have two
important components: knowledge leadership and knowledge management capabilities (Earl &
Scott, 1999; Lebowitz, 1999; Saint Onge, 1999). Companies globally are responding by
developing or reevaluating knowledge leadership programs and knowledge management
initiatives (Davenport & Prusak, 1998; Malhorta, 2001). Consulting companies that design,
develop, and assist companies with knowledge leadership and knowledge management programs
conclude that e-businesses consider these to be important corporate initiatives and organizations
should consider these two components, knowledge leadership and knowledge management
capabilities, in order to be competitive in the Knowledge Age (Brown & Duguid, 2000; KPMG,
2000; Malhorta, 2001). In addition, e-business organizations not knowing, managing, or using
organizational capital (knowledge assets) in understanding and predicting clients business needs
will not be competitive in the Knowledge Age (O’Dell, & Grayson, 1998).
Managing Organizational Culture

“The issue of managing culture is of key importance within management theory and practice” (Ogbonna & Harris, 1998, p. 273). Numerous studies reported that the most frequent reason given for failure of most planned organization changes was due to avoidance of an organizations culture. Studies revealed that the most significant distinguished and differentiated attributes, as well as a firm’s most competitive advantage to be highly successful included their organizations organizational culture. Also, an organization culture needs to be managed (Cameron & Quinn, 1999).

“Most organizational scholars now recognize that organizational culture has a powerful effect on the performance and long-term effectiveness of organizations” (Cameron & Quinn, 1999, p. 4). Empirical research generates an array of findings that reflect the importance of culture to enhance performance (i.e. Cameron & Ettington, 1998; Denison, 1990; Trice & Beyer, 1993). Kotter and Heskett (1992) interviewed seventy-five highly regarded financial analysts whose job is to closely follow specific industries and companies. The results indicated that all of those interviewed, acknowledged culture as a critical aspects in long-term financial success. Other scientific studies reports indicate a positive relationship between dimensions of organizational culture and organizational effectiveness. For example, Cameron and Freeman (1991) generated evidence for the validity of the OCAI in their study of organizational culture in 334 institutions of higher education. Berrio (2003) also established instrument validity and reliability in a modified version of the OCAI, which described the dominant culture type of Ohio State University (OSU) Extension. In addition, previous research by Cameron identified dimensions of organizational effectiveness in institutions of higher education. This study used dimensions to
research the extent to which strong cultures were more effective than weak cultures, and congruent cultures were more effective than incongruent cultures. The effectiveness differed among the various types of organizational cultures. These studies found that cultural strength and cultural congruence were not nearly as powerful in determining organizational effectiveness, as was the cultural type. There was no statistical significant difference that existed between strong and weak cultures, between congruent and incongruent cultures, and between various dimensions of organizational effectiveness, but significant differences did exist when various culture types were compared (Cameron & Quinn, 1999).

In order to understand organizational culture it is important to establish groundwork for introduction to the framework of the core dimensions of organization culture. This research study provides additional research and includes the importance of previous studies to explain the core dimensions of culture. This study also presents a theoretical framework to understand cultural types. According to Cameron and Quinn, “we do not claim that our framework or our methodology represents the one best way or the one right way to diagnose and change organizational culture” (1999, p. 16). Rather, they advocate an approach that has several important advantages to e-businesses that have an interest in diagnosing and changing culture, as well as to scholars that have a desire to investigating organizational culture using quantitative methods. The framework provides a means for a company to understand and analyze key aspects that generate strategies to change culture and improve performance. It provides an intuitively appealing and easily interpretable way to promote the process of culture change (Cameron & Quinn, 1999).
Organization Culture Assessment Instrument Studies

According to Cameron and Quinn (1999), the purpose of Yeung, Brockbank, and Ulrich’s (1991) study tested the organization culture assessment instrument (OCAI), and included the following:

Provided evidence of reliability in their study of 10,300 executives in 1,064 businesses. These businesses included many of the corporations on the list of Fortune 500 companies. The key respondents were human resource executives and various associates that these executives selected to complete the assessment instrument. The number of respondents averaged nine per business. The results showed that the clan culture reliability was .79, the adhocracy culture reliability was .80, the hierarchy culture reliability was .76, and the market culture reliability was .77. In each case, reliability coefficients exceeded satisfactory levels. The largest percentage of firms was dominated by the hierarchy culture (44 percent), clan and adhocracy cultures were next (15 and 14 percent, respectively) and, surprisingly, no firms were dominated by the market quadrant. All had moderate emphasis on the market culture type. Six percent of the firms had all the cultures equally dominant, and 22 percent had no culture emerge as dominant. (p. 39)

Another study, according to Cameron and Quinn, by Zammuto and Krakower (1991) also used the OCAI to research culture in higher education institutions and found:

More than 1300 respondents, including administrators (39 percent of the sample), department chairpersons (34 percent), and trustees (27 percent) rated the culture of their organizations, resulting in reliability coefficients for each of the culture types as follows: clan reliability = .82, adhocracy reliability = .83, hierarchy reliability = .67, and market reliability = .78. (1999, p. 140)

In addition to this study, there have been numerous additional studies, and in every case that Cameron and Quinn are aware of, the reliability of culture types reflected patterns consistent with those mentioned. This means, “sufficient evidence has been produced regarding the reliability of the OCAI to create confidence that it matches or exceeds reliability of the most commonly used instruments in the social and organizational sciences” (Cameron & Quinn, 1999, p. 140).
Cameron and Freeman (1991) generated evidence for the validity of the OCAI in their organizational culture study of 334 higher education institutions. This study of organizations reflected the entire population of four-year colleges and universities in the United States. The respondents in this study identified individuals that could provide an overall institution perspective. A total of 3,406 individuals participated or 12 to 20 people from each institution. Results concluded that none of the organizations were characterized by one specific culture, but instead dominant cultures were incorporated in most institutions. The most frequently occurred culture was the clan culture, and the least frequently appeared culture was a market culture. A total of 236 institutions had congruent cultures and 98 had incongruent cultures (Cameron & Quinn, 1999).

Berrio’s (2003) study searched and explained Ohio State University Extension’s (OSUE) organizational culture that established validity and reliability and included the following:

The questionnaire used to gather data in the sample consisted of a modified version of the Organizational Culture Assessment Instrument developed by Cameron and Quinn. When the mean scores of the culture types Adhocracy, Market, and Hierarchy are compared with the mean score of the dominant Clan culture exhibited by OSU Extension personnel, statistically significant differences are found between the dominant Clan culture and the Market and Hierarchy culture types in both current and preferred situations. The finding suggests of this study are in agreement with the fact that almost two thirds of the colleges and universities in a nationwide study currently have a Clan culture type. In the same study, trustees, administrators, and department chairpersons perceive the Clan culture as the most effective culture type for colleges and universities. (p. 8)

Competing Values Framework (CVF)

The Organizational Culture Assessment Instrument (OCAI) is based on the theoretical model of the Competing Value Framework (CVF). The framework is extremely valuable to help organize and interpret a wide array of organizational phenomena (Cameron & Quinn, 1999). According to the Competing Values Company:
The Competing Values Framework (CVF) was named as one of the most fifty important models in the history of business. It originally emerged from empirical research on the question of what makes organizations effective (Quinn & Rohrbaugh, 1983). It has since been extended as a framework that makes sense of high performance important in regards to numerous topics in the social sciences and organizations. The CVF has been studied and tested in organizations for more than twenty-five years by a group of thought leaders from leading business schools and corporations. It has been the topic of many books and papers and it has been employed in the improvement of thousands of organizations. Though the framework is most often thought of as a leadership tool it has shown to have many important advantages. The CVF can be used for all aspects and levels in organizations. For example, It can be applied to personal style, yet the same framework can also be used to assess communication, leadership, organizational culture, core competencies, decision making, motivation, human resources practices, quality, employee selection, organizational capabilities, organizational change patterns, strategy, financial performance and many others. A person can use the language and concepts of competing values to work with people on issues at many different languages. This allows an organization to integrate its work around a common language and framework. The framework helps leaders work more comprehensively and more consistently improving their organizations’ performance and value creation. More than two decades of work on the CVF has produced a set of intervention processes, measurement devices, and change techniques that capture a comprehensive view of the organization, its outcomes, and its leadership. It predicts the future success of enterprises with significantly greater accuracy than models currently on the market. It goes beyond the capabilities of other approaches to leadership development of other approaches to leadership development, organizational change, or financial valuation in its ability to forecast, measure, and create positive value in organizations. (p. 1)

It is important to understand how the CVF can be utilized at various stages and in different pertinent areas within an organization. It is also vital to understand the basics of the framework.

According to the Competing Values Company:

The basic framework consists of two dimensions – one drawn vertically and the other drawn horizontally–resulting in a two-by-two figure with four quadrants. When studying the effectiveness of organizations more than two decades ago, we noticed that some organizations were effective if they demonstrated flexibility and adaptability, but other organization were effective if they demonstrated stability and control, Similarly, we discovered that some organizations were effective if they maintained efficient internal processes whereas others were effective if they maintained competitive external positioning relative to customers and clients (Quinn & Rohrbaugh, 1981; Quinn & Cameron, 1983; Cameron, 1986). These differences represent the different ends of two dimensions, and these dimensions constitute the rudiments of the CVF. More specifically, one dimension of the framework differentiates and orientation toward flexibility,
discretion, and dynamism from an orientation toward stability, order, and control. One dimension in the CVF, in other words represents a continuum ranging from versatility and pliability on one end to consistency and durability on the other end. The second dimension of the framework differentiates an orientation toward an internal focus and capability, and the integration and unity of processes, from an orientation toward an external focus and opportunities, and differentiation and rivalry regarding outsiders. This dimension ranges, in other words, from cohesion and consonance on the one end to separation and independence on the other. (p. 1-2)

According to Cameron and Quinn, “Together these two dimensions form four quadrants, each representing a distinct set of organizational effectiveness indicators” (1999, p. 31). The relationships of these two dimensions to one another are shown in Figure 3. These indicators of effectiveness signify what people value about the performance in an organization and define the core values of culture that subside in companies (Cameron & Quinn, 1999).

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**Figure 3.** Competing values framework. The competing values framework displays the competing or opposite values in each quadrant.  

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According to Cameron and Quinn (1999):

What is most notable about these four core values is that they represent opposite or competing assumptions. Each continuum highlights a core value that is opposite from the value on the other end of the continuum – that is, flexibility versus stability, internal versus external. The dimensions, therefore, produce quadrants that are also contradictory or competing on the diagonal. The upper left quadrant, for example, identifies values that emphasize an internal, organic focus, whereas the lower right quadrant identifies values that emphasize an external, control focus. Similarly, the upper right quadrant identifies values that emphasize an external, organize focus, whereas the lower left quadrant emphasizes internal, control values. The competing opposite values in each quadrant give rise to the name for the model, the Competing Values Framework. Each quadrant in Fig 3 has been given a label to distinguish its most notable characteristics-clan, adhocracy, market, and hierarchy. It is important to note that these quadrants were not randomly selected. Rather, they were derived from scholarly literature that explains how, over time, different organizational values have become associated with different forms of organizations. We discovered that the four quadrants that emerged from these analyses match precisely the main organizational forms that have developed in organizational science. They also match key management theories about organizational success, approaches to organizational quality, leadership roles, and management skills. The robustness of these dimensions and the richness of the resulting quadrants led us to identify each quadrant as a cultural type. That is, each quadrant represents basic assumptions, orientations, and values—the same elements that comprise an organizational culture. (p. 31-33)

Clan Culture

According to Cameron and Quinn the clan culture is called “a clan because of its similarity to a family-type organization. The clan culture, as assessed in the OCAI, is typified by a friendly place to work where people share a lot about themselves. It is like an extended family” (1999, p. 37-38). The clan culture concentrates on internal issues and values flexibility and discretion instead of stability and control, interest for others, and compassion for customers. The goal of clan culture is to manage a surrounding through teamwork, participation, and harmony (Cameron & Quinn, 1999; Berrio, 2003). “The organization is held together by tradition and loyalty. Commitment is high. Leaders are thought of as mentors and, perhaps, even as parent figures” (1999, p. 38).
Adhocracy Culture

According to Cameron and Quinn, “the root of the word adhocracy is ad hoc—referring to a temporary, specialized, dynamic unit” (1999, p. 38). The adhocracy culture concentrates on external issues and values a high degree of flexibility, individuality, and discretion with key values of creativity and risk taking, instead of stability and control. The adhocracy culture is based on an assumption that typifies an organizational world of the twenty-first century responsive to hyper-turbulent conditions that innovates new initiatives for the future that leads to success. It is also based on assumptions that organizations are in business to develop new products and services and prepare for the future, and that goals of management and effective leadership are to generate vision, entrepreneurship, creativity, and activity on the cutting edge (Cameron & Quinn, 1999; Berrio, 2003). “The adhocracy culture, as assessed in the OCAI, is characterized by a dynamic, entrepreneurial, and creative workplace. People stick their necks out and take risks” (Cameron & Quinn, 1999, p. 40). The organizations long-term goals for success include rapid growth and to acquire new resources, which means the ability to produce unique and original products and services (Cameron & Quinn, 1999; Berrio, 2003).

Hierarchy Culture

The hierarchy culture is established on Weber’s theory of bureaucracy and values tradition, consistency, cooperation and conformity (Cameron & Quinn, 1999; Berrio, 2003). “Until the 1960s, almost every book on management and organizational studies made the assumption that Weber’s hierarchy or bureaucracy was the ideal form of organization, because it led to stable, efficient, and highly standardized products and services” (Cameron & Quinn, 1999, p. 34). Also, lines of decision-making influenced, harmonized rules and procedures, and controlled and
accountability means were valued as keys to success (Cameron & Quinn, 1999; Berrio, 2003).

“The organizational culture compatible with this form (and as assessed in the OCAI) is characterized by a formalized and structured place to work. Procedures govern what people do” (Cameron & Quinn, 1999, p. 34). The hierarchy culture concentrates more on internal versus external issues and values stability and control rather than flexibility and discretion (Cameron & Quinn, 1999; Berrio, 2003). “The long-term concerns of the organization are stability, predictability, and efficiency. Formal rules and policies hold the organization together” (Cameron & Quinn, 1999, p. 34). In the hierarchy culture the leadership style consists of a coordinator, monitor, and organizer (Cameron & Quinn, 1999; Berrio, 2003).

Market Culture

The market culture became popular in the late 1960’s as organizations were faced with new competitive challenges. This type of culture was based on work primarily done by Oliver Williamson, Bill Ouchi, and their colleagues (Cameron & Quinn, 1999; Berrio, 2003). “These organizational scholars identified an alternative set of activities that they argued served as the foundation of organizational effectiveness” (Cameron & Quinn, 1999, p. 35). The market culture values stability and control; however, concentrates more on external (market) instead of internal issues. This culture tends to view the external environment as threatening, and seeks to identify threats and opportunities as it pursues competitive advantage and profits. The major focus of markets is to conduct transactions (exchange, sales, and contracts) with other constituencies to develop competitive advantage. The primary objectives of a market culture organization are profitability, bottom line results, strong market niches, stretch targets, and secure customer bases. The core values that dominate market type organization are productivity and competitiveness.
The type of culture is a results-oriented workplace. In this culture, leadership type includes that of hard-driving, competitive, and productive manager with an emphasis to win (Cameron & Quinn, 1999; Berrio, 2003). “Success is defined in terms of market share and penetration. Outpacing the competition and market leadership are important” (Cameron & Quinn, 1999, p. 36).

Applicability of Competing Values Model

Various aspects of organizations have been studied which leads to the discovery that the robust Competing Values Framework also orders other attributes of organizations to include cultural values and forms of organization. These are shown in Figure 4 and include “leadership roles, the effectiveness criteria, and the core management theories, all of which are closely associated with each of the four quadrants” (Cameron & Quinn, 1999, p. 40). Cameron and Quinn (1999) have discovered through their own research that most organizations developed a prominent cultural style. More than 80 percent of the several thousand organizations Cameron and Quinn have studied use the CVF and have been characterized by one or more culture types. Organizations that have not been identified with a dominant culture type either tend to be unclear about their culture, or they emphasized nearly equally the four different cultural types (Cameron & Quinn, 1999).
Organizational Culture Types and KM Initiatives

<table>
<thead>
<tr>
<th>Culture Type:</th>
<th>FLEXIBILITY DISCRETION</th>
<th>Control Stability</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLAN Leader</td>
<td>Facilitator Mentor Parent</td>
<td>Mentor Development of Human Resources</td>
</tr>
<tr>
<td>Effectiveness Criteria: Cohesion Morale Development of Human Resources</td>
<td>Innovativeness fosters new resources</td>
<td></td>
</tr>
<tr>
<td>Management Theory: Participation fosters commitment</td>
<td>Externally Positioning and Differentiation</td>
<td></td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Culture Type:</th>
<th>HIERARCHY</th>
<th>MARKET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leader Type:</td>
<td>Coordinator Monitor Organizer</td>
<td>Hard-driver Competitor Producer</td>
</tr>
<tr>
<td>Effectiveness Criteria: Efficiency Timeliness Smooth functioning</td>
<td>Market share Goal achievement Beating Competitors</td>
<td></td>
</tr>
<tr>
<td>Management Theory: Controls foster efficiency</td>
<td>Competition fosters productivity</td>
<td></td>
</tr>
</tbody>
</table>

Figure 4. The competing values of leadership, effectiveness, and organizational theory. The competing values framework displays the competing or opposite values in each quadrant. 3

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Organization Culture Profiles

The OCAI focuses on some core attributes of an organization's culture. The ratings of these core attributes produce an indication of the culture types that are prominent within an organization. The most effective way to interpret ratings and numbers is to plot, draw pictures, and graph them. The pictures provide people with a better visual of what numbers mean. It is possible to see more relationships, do more comparisons, and identify trends through analyses of images rather than through the review of results in numerical analyses. For example, Figure 5 shows the average plot for more than forty thousand managers, whom represent over one thousand organizations. In comparison, Figure 6 reflects a culture profile specifically from the Transportation/Communications/Electric, Gas and Sanitary Industry (Cameron & Quinn, 1999).

![Culture Plot](image)

*Figure 5.* An average culture plot for more than 1000 organizations. An average culture plot for more than 1000 organizations generated with a database created by Cameron and Quinn from a profile of the average culture plot of organizations. 4

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Figure 6. Transportation/communications/electric, gas and sanitary $N=127$. Transportation/communications/electric, gas and sanitary $N=127$ illustrates the average culture profile for this industry group as provided by Cameron and Quinn.  


Having a visual of an overall culture profile, as well as the profiles of each of the six culture attributes, an organization can interpret these profiles from many different perspectives. These six comparison standards include, the type of culture that dominates an organization, discrepancies between the existing and favored future culture, the power of the culture type that dominates an organization, the congruence of the culture profile generated on different attributes and by different people in an organization, a comparison of an organizations culture profile with the average culture profiles of almost one thousand organizations as rated by approximately fourteen thousand of managers within these organizations, and comparability of an organization with some general trends that have been notice in more than ten years of work with this culture
instrument. The intent of these graphs is to understand the strengths and potential for change in organizational culture within a company. To understand how an organization under study is the same as and different from other similar organizations, how its different aspects are aligned with one another, and in what ways change may be instigated are all important outcomes from the analysis of organizational culture profiles (Cameron & Quinn, 1999).

Summary of Organizational Culture Based on CVF

According to the Competing Values Company:

One of the most important applications of the CVF is as a guide for change. Hundreds of organizations have used the framework to diagnose and implement culture change, establish competitive strategy, motivate employees, facilitate organizational development and change, implement quality processes, develop high potential leaders, and so on. These change initiatives emphasize have highlighted the existence of two secondary dimensions in the framework that help lead the improvement of performance and value creation. One dimension identifies key differences in dynamics or approaches to change. Another supplement dimension in the CVF refers to the different levels of analysis that must be considered by leaders who desire to create value. Each level emphasizes different element in the value creation process which, when aligned in a congruent way, reinforce one another in the creation of value. The CVF makes clear that achieving valued outcomes in each of the quadrants is crucial for organizational effectiveness over the long term. The development of a well-rounded outcome portfolio (Gadiesh & Gilbert, 1998) guided by the CFV is an effective strategy to ensuring long-term success and value enhancement. (p. 3-4)

Theory of Organizational Knowledge Creation

The theory of organization has long been dominated by a paradigm that conceptualized the organization as a system that “processes” information or “solves” problems. An organization that deals with continual changes in an environment should not only process information efficiently, but should also create information and knowledge. Essential elements of theory of organizational creations, as well as basic concepts and models of the organizational knowledge creation, are
vital to understand in order to promote knowledge management initiatives within an organization (Choo & Bontis, 2002).

The prime movers in the process of organizational knowledge creation are the people of the organization. Individuals are constantly committed to recreate the world from their own perspectives. Commitment is one of the most important factors to create the formation of new knowledge within an organization. The three basic components that will induce individual commitment in an organizational environment include: intention, autonomy, and a certain level of fluctuation (Choo & Bontis, 2002).

Two Dimensions of Knowledge Creation

An immense amount has been printed about the importance of knowledge in management; however little consideration has been acknowledged on how knowledge is created and how the knowledge creations process is managed. One component of this knowledge creation process can be drawn from the distinction between two types of knowledge, tacit knowledge and explicit knowledge (Choo & Bontis, 2002).

Tacit Knowledge

The first and most common type of knowledge is tacit knowledge. Tacit knowledge is personal, and context specific, therefore hard to sanctify and convey. Tacit knowledge is subjective, experienced-based knowledge that cannot be expressed in words, sentences, numbers or formulas. Tacit knowledge is oral or knowledge that really cannot be written down because tacit knowledge includes beliefs, images, intuitions, mental models, and technical skills (Ruggles & Holtshouse, 1999). Tacit knowledge can be inferred through actions and behaviors of individuals (Groff & Jones, 2003; Nonaka & Takeuchi, 1995). Tacit knowledge is created and
shared around the water cooler and spreads when people meet and tell stories. The ability to make tacit knowledge explicit is a key function of a knowledge management strategy (Groff & Jones, 2003). Tacit knowledge needs to become explicit; what is unspoken must be spoken; otherwise tacit knowledge cannot be examined, improved, or shared (Stewart, 1997). Some examples of tacit knowledge reflect in the following: face-to-face conversations, both informal and formal, telephone conversations, both formal and informal, and the knowledge that an individual processes in ones head (Srikantaiah & Koening, 2000). Organizations stand to lose tacit knowledge if an employee leaves a company or if an employee has no means or motivation to reveal what they know to others. Tacit knowledge is to share readily with others when trust and recognition of mutual benefit is in the exchange (Figallo & Rhine, 2002).

**Explicit Knowledge**

Explicit knowledge is captured in databases and documents. Explicit knowledge can be transferred in rules, in documents, and in courseware. Some examples of explicit knowledge can be found in the following: commercial publications, organizational business records, email, Web, Groupware, Intranets, databases, and self-study materials (Srikantaiah & Koening, 2000).

To make knowledge management effective it is vital to integrate explicit knowledge and tacit knowledge as an infrastructure together. The type of infrastructure used is dependent upon an organizations goal and purpose and the intricacy and the accessible resources to support knowledge management. The infrastructure may include minimal or complex information technology, back up from top management, communal resources, and a basis of trust, mentoring, employee training, and employee development, along with the distribution of adequate budgeting to endow in knowledge management initiatives (Srikantaiah & Koening, 2000). For example, if a
new employee is provided with training and emphasized the value and necessity of knowledge management, then organizations will invest in this knowledge management to provide a stronger foundation to their infrastructure. Additional infrastructure includes the use of knowledge management techniques in the continuation to train. A skeptical employee can see first-hand the true value of knowledge management, which is to become a more effective employee to learn more skills. Employees who perform given functions for extended periods of time may often forget to pass on relevant tacit knowledge to new employees. Forgetting to pass on knowledge is not intentional. Instead, research indicates that after a long time, many operations become so ingrained about passing tacit knowledge on that it becomes automatic, thus training a new employee by passing information on is not thought of (Burden, 2000).

Knowledge Generation

According to Choo and Bontis (2002):

A firm generates value from what it knows through the organizational processes of knowledge creation, knowledge transfer, and knowledge utilization. In knowledge creation, the firm produces new knowledge through the dynamic conversation and externalization of its tacit, embedded knowledge. In knowledge transfer, knowledge is shared within a firm across different functional groups, product families, geographical locations, and time periods. Knowledge is transferred between firms through inter-organizational alliances and linkages. In knowledge utilization, the firm integrates and coordinates its different forms of knowledge in order to take action and to produce goods and services. Tacit knowledge provides an important role in knowledge creation, codified or explicit knowledge facilitates knowledge transfer, and “common” knowledge or shared understanding about goals and purpose guides knowledge utilization. (p.16)

Five Modes of Knowledge Generation

Knowledge generation consists of five modes that include: “acquisition, dedicated resources, fusion, adaptation; and knowledge networking” (Davenport & Prusak, 1998, p. 52). The common factor for efforts of knowledge generation “is a need for adequate time and space devoted to
knowledge creation or acquisition” (Davenport & Prusak, 1998, p. 67). Knowledge generation means the knowledge acquired by an organization as well as knowledge developed within an organization (Davenport & Prusak, 1998). According to Davenport and Prusak (1998):

Acquired knowledge does not have to be newly created, only new to the organization. The most direct and often most effective way to acquire knowledge is to buy it – that is, to buy an organization or hire individuals that have it. Of course, not all corporate purchases are knowledge acquisitions. Companies buy other companies for various reasons: to generate additional revenue, to achieve a strategic size or product mix, to get access to new markets, or to gain the skills of a senior management team (this last reason, however, borders on knowledge acquisition). In some cases, knowledge may emerge as a by-product of a purchase made primarily for other reasons. Increasingly, though, firms acquire other companies specifically for their knowledge. They are often willing to pay a premium over the market value of the company purchased because of the value they expect to get from adding that new knowledge to their own knowledge stock. (p. 53)

“A customary way to generate knowledge in an organization is to establish units or groups specifically for that purpose” (Davenport & Prusak, 1998, p. 58). Research and development (R&D) departments are the standard example of dedicated resources. The goal of a research and development department is to come up with new knowledge and new ways of doing things (Davenport & Prusak, 1998). Further findings by Davenport and Prusak (1998) included the following:

The R&D approach predicted on reducing the pressure and distractions that can suppress productive research, knowledge generation through fusion purposely introduces complexity and even creates conflict to generate new synergy. It brings together people together with different perspectives to work on a problem or project, forcing them to come up with a joint answer. (p. 59-60)

A firm’s ability to adapt is based on two principal factors: first, having existing internal resources and capabilities that can be utilized in new ways and second, being open to change or having a high ‘absorptive capacity’. The most important adaptive resources are employees who can acquire knowledge and skills easily. Since the best predicator of mental nimbleness is proven experience in taking on new tasks, firms should seek out employees who have already mastered a variety of roles and skills. Employees whose backgrounds suggest openness to change should therefore be given a hiring preference.
But this attribute can be reinforced by exposing workers and managers to a wide variety of knowledge, particularly at times when change is seen as vital. (p. 65)

Knowledge can be generated by informal and self-organized groups, which over time may become more formalized and called communities (Nohria & Eccles, 1994). Communities form relationships and bonds of trust with members that lead to interactions that bring value to each other and basically the e-business organization. It is also this value that draws members to continue to build and share histories of experiences and information (Figallo, 1998). More specifically, communities of “knowers” are brought together by common interest and collaborate “to share expertise and solve problems together. When networks of this kind share enough knowledge in common to be able to communicate and collaborate effectively, their ongoing conversation often generates new knowledge within firms” (Davenport & Prusak, 1998, p. 66). In addition, knowledge network should match into the existing organizational culture if it is going to be attractive to employees and accepting by leadership. An assessment of the organizations existing cultures flexibility, willingness to change, and support of top leadership should be done. Understanding the changes likely to come through will open knowledge exchange (Figallo & Rhine, 2002).

A final critical factor of knowledge generation is recognition by managers that knowledge generation is both an important activity for e-business successes and processes. “As individuals interact with their environments, they absorb information, turn it into knowledge and take action based on it in combination with their experiences, values and internal rules” (Davenport & Prusak, 1998, p. 53). Without knowledge, an e-business organization could not systematize; therefore, it would be unable to continue to function as a company (Davenport & Prusak, 1998).
Knowledge Management Roles

If knowledge management is to thrive, companies need to develop positions and competencies to do the work of obtaining, disseminating, and utilizing knowledge. These roles may include strategic knowledge management positions with titles like chief knowledge officer (CKO) or chief learning officer (CLO). The positions usually include a visionary leader, whom possesses thorough knowledge of long-term strategic and competitive needs of the organization. The role knowledge management positions are to lead in the development of the culture, managerial organizational change, and facilitate the creation and utilization of corporate knowledge management services (Groff & Jones, 2003). The CKO needs to have the breadth of understanding of a chief executive officer and the technological understanding level similar to a chief information officer (Tiwana, 2000).

The skills for the critical role of a CKO in order to define, develop, and distribute a global knowledge management strategy, include persuasive, negotiation, and public speaking skills. The CKO often works closely with the technology staff, so having technology skills and to understand technology is vital, particularly in respects to potential deployment of knowledge management systems. A CKO also needs to understand how a company works, inside and out, in order to comprehend critical processes. The CKO position involves the radical redesign of performance measurement metrics and employee compensation systems to effectively encourage employees to share what is known. If a CKO is unsuccessful to expose the sharing of information among employees, the only possible outcome is enterprise-wide knowledge hoarding (Tiwana, 2000).
Individuals in knowledge management roles, such as chief knowledge managers should be extremely extroverted, as work responsibilities include established relationships to promote complex knowledge transfer between teams separated by time, distance, competition, and worldview. Some organizations hire external leaders who are often unsuccessful in this role, because individuals lack strong personal contacts and earned trust (social capital) within the company. The promotion of individuals from within an organization should be considered, since this is easier and less expensive, particularly if an organization already has well respected individuals who are experienced with the company (Groff & Jones, 2003).

The role of the CKO is to turn a concept into reality. Knowledge cannot be managed; however, a CKO can manage an environment that optimizes knowledge and encourages individuals to share information, create knowledge, and generate teamwork, an environment that enables creative and supportive interaction between people who store, code, and provide information in a way that adds value to an individuals work and benefits the organization; and that creates a community of trust and common purpose. To achieve a knowledgeable management environment a focus is needed in three areas: preparing the organization, managing the knowledge assets, and leveraging knowledge (Liebowitz, 1999).

Preparing the organization is where most of the CKO’s efforts will be focused. Knowledge management is primarily about changing the culture, changing the way people work, and building a trusting and sharing community. CKO’s, also need to focus on managing knowledge assets and leveraging knowledge. Preparing for this requires reviewing, expressing, and perceiving corporate values; creating “space” in which people are meeting, working, and interacting; focusing on individual and corporate learning; assessing business processing and
organizational structures, and evaluating the rewarding and motivating systems (Liebowitz, 1999).

Organizational Culture and Knowledge Management Research

Various discussions were held about the importance of organizational culture for the success or failure of knowledge management and knowledge sharing in the modern enterprise. Studies indicate that culture may make or break efforts to manage knowledge effectively within an organization (Choo & Bontis, 2002). Lawson’s research study included the examination of studies to understand what cultural types or cultural values were found to be most significant to the implementation of effective knowledge management practices. One study Lawson described was by Lesser and Storck (2001). This study concluded that communities of practice provided value to an organization and can be used as a means to improve performance within a company. In a second study, Lawson indicated that Berman-Brown and Woodland (1999) concluded that the more an organization shared knowledge, the more new knowledge would be generated; thus the organization could become a more significant competitor. In a third study, Lawson provided and included a study by Pan and Scarbourgh (1999). This study concluded that knowledge management systems consist of more than technology, that cultures are important as new roles are developed. This study also revealed that learning and competence development are important and need to be encouraged and knowledge sharing systems are implemented to generate integration of knowledge toward the organizations goals. A final study provided by Lawson included a study by Gold, Malhotra, and Segars (2001). This study examined the relationship between knowledge management and organizational capabilities, specifically assessing key capabilities that directly impact an organizations ability to successfully implement knowledge
management. The results concluded that process capabilities of knowledge acquisition, conversion (presence of social capital), application, and protection are positively related to organizational effectiveness and form an operational framework for managed knowledge (Lawson, 2004).

In conclusion, Lawson’s literature review of numerous research studies indicated that for effective implementation of knowledge management to occur, a certain culture type must exist within an organization. The studies that were examined revealed specific cultural values or social context, which is vital for organizations to pursue in order to have successful knowledge management results. Lawson’s literature review revealed that for effective implementation of knowledge management a culture type, which stresses sharing, trust, involvement, and creativity are essential. In addition, Lawson’s literature review indicated a multiplicity of conditions and culture that are required for the effective implementation of knowledge management. The culture dimensions or values Lawson identified as core to the phenomenon and implementation of knowledge management are: sharing, trust, flexibility, learning, collaboration, and innovation (Lawson, 2004).

Lawson’s overall research study concluded that organizational culture types have a positive correlation with knowledge management with the exception of the hierarchy culture type, which did not support the successful implementation of knowledge management. The market culture did show support of knowledge management initiatives, and the results of clan and adhocracy culture types supporting knowledge management were inconclusive. In addition, specific cultural values were identified in Lawson’s study, which were critical to the effective implementation of knowledge management (2004). In a similar study, Chin-Loy (2004) used the same two
instruments (Cameron & Quinn’s 1999 OCAI and Lawson’s 2002 KMAI) as Lawson and results concluded that organizational culture is positively related to organizational benefits with high positive correlations. Finally, the literature review on organizational culture in Lawson’s study was validated through previous studies that the Organizational Culture Assessment Instrument (OCAI), based on the theoretical model of the Competing Value Framework (CVF), is a valid instrument, which is evidenced through successful results.
CHAPTER 3. METHODOLOGY

Introduction

Many important concepts, primarily consisting of people and culture have materialized from knowledge management practices within e-business organizations. These knowledge management initiatives have increased the value and competitive edge within e-business companies. This information includes the history of knowledge management and previous research studies, as evidenced in the Literature Review of this research study. It is also clear that further research is needed to continue to better understand the relationship of organizational culture types and knowledge management initiatives within e-business organizations. This research case study used a grounded theory approach, mixed methodology design, and sequential explanatory strategy, to provide some additional research to better understand the phenomenon of knowledge management initiatives in an e-business organization.

Restatement of the Problem

It is important for leaders in e-business organizations to understand the importance of employee knowledge, and the influence workers and management have on organizational culture as it relates to knowledge management practices. According to Liebowitz (1999, p. 4-1), “knowledge management is 80% about people and cultural change rather than technical development.” The concepts and trends that have emerged from knowledge management initiatives, from the use of technology to capture, handle, and locate knowledge to knowledge sharing and learning among individuals, elaborating education, and knowledge distributing capabilities, have enhanced the value and competitive edge of e-business organizations. In order to continue this growth and become more successful, e-business organizations, management, and
leaders need to consider continual assessment of knowledge management strategies and best practices, as well as understand the relationship between culture types and these knowledge management initiatives. This research case study and grounded theory approach used a mixed methodology design and sequential explanatory strategy to help understand the value and the relationship between organizational culture and knowledge management initiatives in one operational segment of an e-business organization.

Purpose of the Study

The purpose of this research was to understand the relationship between organizational culture type(s) and continuous knowledge management initiatives in an e-business organization among sales professionals within the transportation industry. Understanding this relationship and performing this research for this particular e-business organization under study may enhance the value, and increase the organizations competitive advantage, which may ultimately provide more success to this organization. The results of this research study may also help other e-business organizations, particularly in the transportation industry to determine if knowledge management practices will be beneficial and advantageous to their e-business organization as they assess their organizational culture type(s) and consider implementing knowledge management initiatives.

Research Question

Research indicates that little is known about the relatively new field of knowledge management (Williams, 2003), particularly between the relationship of organizational culture types and knowledge management initiatives (Lawson, 2004). This research case study provided exploratory research on this subject matter. This grounded theory study focused on the development of a theory that is grounded from various sources of data (Creswell, 2003). This
study considered to be emergent in that it does not test a hypothesis, but instead pursued the research situation to understand subjective experiences of participants (Locke, 2001). In addition, the researcher explored in-depth processes, activities, and events (Creswell, 2003) of data from participants as it related to the research problem.

This case study addressed the following research question: “How does organizational culture influence continuous knowledge management initiatives in an e-business organization?” The search for this question utilized the Competing Values Framework (CVF), which established four organizational culture types as previously mentioned and explained in Chapter 2, the Literature Review. Finding the answer to this research question may be vital to understanding the relationship between organizational culture types and knowledge management initiatives. In addition, obtaining this important information may be the key prior to implementing knowledge management initiatives to an e-business organization.

Protection of Human Participants

In order to provide ethical treatment to all participants, 31 sales professionals (21 men and 10 women), throughout this case study, the researcher first obtained approval to do the case study from management (see Appendix A). Upon management approval to conduct this study, the researcher proceeded to obtain consent from human participants via a consent form, shown in Appendix C, which was given to participants with the questionnaire. In addition, the researcher provided similar information in the cover of the survey. The researcher abided to all provisions, which included participant confidentiality of data and who maintains access to data, as indicated in all documents and consent forms. The researcher stored all data in a locked cabinet and secure database, which includes all documents and recordings for a minimum of seven years after the
publication of results. Finally, the researcher completed the International Review Board application (IRB) and provided the application to Capella University and parties as required.

Strategies of Inquiry

This case study sought to understand present-day knowledge management phenomenon of sales professionals within the Minneapolis sales district of an e-business organization in the transportation industry. The size of the e-business organization in this study is very large with the company employing approximately 250,000 people globally, which includes approximately 3,200 sales professionals throughout the country. This case study included 31 field sales professionals that work out of the Minneapolis sales district, of the 3,200 located throughout the country.

This case study gathered and analyzed data to help understand the relationship between organizational culture types and knowledge management initiatives of the sales professionals in the Minneapolis market. In order to understand this relationship in more depth, two strategies of inquiry were used: a case study and grounded theory. According to Creswell, case studies and grounded theory entail the exploration of processes, activities, and events (2003). These specific sales professionals were selected for this case study because several of these sales professionals expressed feedback to sales management after the National Sales Conference in June 2004 about being more knowledgeable than other sales professionals (3,200) around the country that are employed within this e-business organization.

Case Study Approach

According to Yin, a case study is an empirical study that investigates a contemporary phenomenon, within its real-life context; when the boundaries between the phenomenon and
context are not clearly evident; and in which multiple sources of evidence are in use (1984).

Review of literature and research on the relationship between organizational culture and knowledge management practices within an e-business organization suggests such a phenomenon. This case study investigated the lack of clear boundaries between human behavior of knowledge management practices and the context within which type of organizational culture continuous knowledge management initiatives occur. The results indicated that for most human behaviors, a researcher may have a difficult time to decipher behavior from context, which may include organizational culture, individual motives, or organizational agendas (Barreto, 2003; Davenport, 1997; Sveiby, 2001). An in-depth understanding of the phenomenon of human behaviors of how sales professionals within a specific type of organizational culture play a role in knowledge management practices in the most naturalistic setting was determined to be the best approach in this case study. This type of approach for this e-business organization under study was determined to be most the beneficial in order to understand relationships and effective means that enables long-term success, enhances value, and helps to increase an organizations competitive advantage.

According to Cooper and Shindler, “case studies place more emphasis on a full contextual analysis of fewer events or conditions and their interrelationships” and “an emphasis on detail provides valuable insight for problem solving, evaluation, and strategy” (2003, p. 150). One of the benefits of this case study approach is that it allowed the researcher leverage to change aspects of events and conditions generated in the study during data-collection efforts to take advantage of unanticipated opportunities. The design of a case study continually evolves and
must be pliable to the schedules of the respondents, as well as to new options, and receptive to potential shifts of circumstances in the progress of the study (Barreto, 2003; Yin, 1984).

**Qualitative challenges.** All participants that completed a consent form at the time the questionnaire was provided were asked to participate in this case study and were contacted upon analysis of survey results. The researcher anticipated a challenge in the continually evolution and shift in circumstances, particularly in the second phase of the sequential strategy (qualitative) because of the nature of sales professionals demanding and hectic work schedules. All data collection of interviews included collection in the participant’s naturalistic setting, which occurred primarily between customer calls. This naturalistic setting included the participant’s car, home or work office for account executives and sr. account executives and the work office for administrators and sales managers. The researcher contacted all account executives and sr. account executives by telephone or face-to-face, and an appointment was scheduled, unless the participant was available for an interview at the time of the call, at which time the participant was immediately interviewed. The researcher contacted administrators and sales managers that participated in this case study via face-to-face contact since the researcher works in the same office. If the administrator or sales manager happened to be available, the interview took place immediately. If the administrator or sales manager was not available at this time, an interview time was scheduled. The researcher is an employee of the e-business under study, so all telephone numbers and email addresses, if required for follow-up were available and easily accessible to the researcher.

**Quantitative and qualitative data.** According to Creswell, the purpose of a case study is “to use qualitative results to assist in explaining and interpreting the findings of a primarily
quantitative study” (2003, p. 215). In this case study the researcher explored in depth a program, an event, an activity, a process or one or more individuals from both quantitative and qualitative data types. This case study was bounded by time and activity, and the researcher collected detailed information using an assortment of data collection procedures over a prolonged period of time (Creswell, 2003; Stake 1995). The quantitative and qualitative data collection and analysis in this case study took 60-90 days (April-June 2005) to complete.

**Grounded Theory**

Grounded theory is a set of techniques that brings the researcher close to a participant’s experiences, provides a rigorous and detail method for identifying categories and emerging concepts, and provides researchers the link to concepts in substantive and formal theories (Glaser & Strauss, 1967). Grounded theory has not changed since it was first introduced in 1967; however, the specificity of procedures has been elaborated in some facets as the method has evolved in practice. The procedures of grounded theory are designed to create a well-integrated set of concepts that provides a comprehensive theoretical explanation of social phenomena under research study. According to Corbin and Strauss (1990), a grounded theory should explain and describe. In addition, grounded theory may give some degree of predictability, but only with regards to precise conditions (Corbin & Strauss). The researcher in this case study attempted to derive a theory of processes, actions or interactions grounded in the views of participants in the study. A theory emerged to fulfill the research question, “How does organizational culture influence continuous knowledge management initiative in an e-business organization?”

Grounded theory is also depicted as a broad approach to develop theory that is grounded in data systematically gathered and analyzed (Denzin & Lincoln, 1993). The process consists of using
multiple phases of data collection and the refinement and interrelationship of categories of information (Corbin & Strauss, 1990). In this case study, the process of multiple phases of data collection included a sequential explanatory strategy, which consisted of data collection and analysis of quantitative data and then qualitative data.

In grounded theory, two characteristics prevail in design, which are constant comparison of data with emerging categories and theoretical sampling of different groups to maximize similarities and differences in information (Creswell, 2003). For example, in this study the researcher, as is typical with data collection with interviews in grounded theory, according to Glaser and Strauss (1967), conducted 24 interviews, or eight interviews from three different teams, in order to saturate and establish categories. The participants that were interviewed and subsequently selected based on the emerging theory, a process known as theoretical sampling, in order to assist the researcher elaborate the theory (Glaser & Strauss). According to Creswell’s definition, theory is “an abstract analytical schema of a phenomenon that relates to a particular situation. This situation is one in which individuals interact, take actions, or engage in a process in response to a phenomenon” (1998, p. 56). In this study, theory arose from credible interpretations of a phenomenon through the use of constant comparison of data to disembark at a “best explanation” (Crosetto, 2004).

The data for grounded theory can come from various sources, or any information that sheds light on the questions in study (Corbin & Strauss, 1990). The data collection in this case study entailed quantitative data from a survey instrument and qualitative data from telephone or face-to-face interviews with account executives and sr. account executives, and face-to-face interviews with sale managers and administrators in naturalistic settings, observations, as well as
other documentation. All sources were coded in the same way for interviews and observations (Glaser & Strauss, 1967). The researcher used consistency during interviews and observations to assure credibility and prevent bias among participants.

Mixed Methods Design

A mixed methods approach was determined to be paramount for this study because this method best answered the research question. The researcher based the inquiry on the assumption that collecting diverse types of data sequentially, through triangulation of quantitative data and qualitative data, provided the best understanding of the research problem. According to Creswell, priority is usually given to quantitative data, but integration of both methods occurs during the final interpretation phase (2003). The first phase of this case study instigated with an extensive survey in order to generalize results to a population and then concentrated, in a second phase, on collection and analysis of specific qualitative data through open-ended telephone or face-to-face interviews with account executives and sr. account executives, and face-to-face interviews with managers and administrators in naturalistic settings, observations, and documentation. The purpose of the first phase, from a two-phase approach, of this sequential mixed methods or sequential explanatory strategy (see Figure 2) in this case study, was to gain statistical, quantitative results and then to follow up with participants to probe or explore results in more depth (Creswell, 2003).

In the first phase, the researcher used quantitative research questions from the survey instrument, Organizational Culture and Knowledge Management Assessment Survey, to determine the relationship between organizational culture and continuous knowledge management initiatives among sales professionals within the e-business under study. The design
of this survey instrument included three components: a Demographic Respondent Profile, an Organizational Culture Assessment Instrument (OCAI), and a Knowledge Management Assessment Instrument (KMAI). The case study data analysis comprised of description and correlation between two sets of data, organizational culture and knowledge management, four different types of organizational culture, and six dimensions of knowledge management processes, which are shown in Figure 7, Correlation Aspects. In the second phase, the researcher used qualitative data collection to examine the results in more detail. This strategy was easy to implement because steps fell into clear and separate phases. In addition, the design element made it easy to describe and report. The primary disadvantage of this design (two split stages) was the length of time it took for data collection (Creswell, 2003).

*Figure 7. Correlation aspects*
Population and Sample

The population \((N)\) of the sales force within the large company in the transportation industry under study included approximately 3,200 sales professionals. The sample \((n)\) used in this case study entailed 31 of these 3,200 sales professionals throughout the United States. In order to concur with company management for this study the researcher was allowed approval to a sample \((n)\) of 31 sales professionals in the Minneapolis market only. The participants of the e-business organization under study consisted of 21 men and 10 women who range in age from 20 years old to over 50 years old. This study involved theoretical sampling, a method that allowed the researcher to gain an in-depth understanding of how organizational culture influences continuous knowledge management initiatives among sales professionals within the e-business organization in the transportation industry under study. Further breakdown of the specific sample population included three sales teams from the same sales district with locations in Minneapolis, Minnesota. The first sales team consisted of one manager, one administrator, and nine sales executives. The second sales team consisted of one manager, one administrator, and ten sales executives and the third team consisted of one manager, and 11 sales executives, totaling 31 sales professionals. Permission by the e-business organization to do this case study of these specific participants was granted, as indicated in Appendix A.

One purpose of this study was to understand the dominant organizational culture type(s) among sales professionals in the Minneapolis sales district of the e-business under study and the relationship between this organizational culture type(s) and dimension(s) of knowledge management initiatives of sales professionals. The questionnaire used to gather data from the targeted population consisted of a modified version of the demographic respondent profile
section by the researcher to better fit the population studied in this case. Changes from Lawson’s
demographic respondent profile section included asking nine questions instead of 11 questions.
Three questions were dropped from the questionnaire as they queried information already known
to the researcher, or unnecessary to the study. These questions included the major business
function of the organization, the number of employees within the organization and the number of
promotions received in the last three years. The researcher asked several of the same questions or
similar questions Lawson asked in the demographic respondent profile section, which included
the following: job title, length of time in the company, gender, age group, education level,
whether or not the organization has knowledge management practices and knowledge
management training in place, and the amount of knowledge management training, if continuous
knowledge management initiatives, are in place. In addition, the researcher asked the length of
time the participant has been in the transportation industry. The additional two sections included
the OCAI, originally developed by Cameron and Quinn (1999) and the KMAI, developed by
Lawson (2004), were determined to be the best approach to begin to understand this case study
by the researcher. The OCAI is a public-domain document so permission to utilize this
instrument by the researcher was not necessary. The researcher did need to request authorization,
as shown in Appendix B, from Lawson the creator of the modified instrument, to use this survey.
The modification of Lawson’s survey version includes the combination of Cameron and Quinn’s
OCAI and Lawson’s KMAI.

Research confirmed that only two other researchers, Lawson (2004) and Chin-Loy (2003)
from Nova Southeastern University, have used this survey instrument (mail-in) in dissertations.
Both studies provided valuable background for this study. Also, a single case study was never
before conducted that used this particular questionnaire. Research confirmed: however, that single case studies like Berrio’s study that used the OCAI, a mail questionnaire, and multi-case study approaches in knowledge management (Baretto, 2003), as well as other research knowledge management (Chu, 2002; Gold, 2002; Teruya, 2003; Williams, 2003) do provide invaluable research on the subject matter, knowledge management. In particular, Berrio’s (2003) study on the OCAI provided valuable information to Ohio State University Extension (OSUE). The findings of this study were in harmony with the fact that almost two thirds of the colleges and universities in a nationwide study currently have a clan culture type. Clan organizations emphasize individual development, morale, teamwork, participation and consensus (Cameron & Quinn, 1999). Berrio’s study is similar to this single case study research because it can be used as part of a larger change effort to diagnose issues related to leadership, teamwork, and management behavior, and to determine the impact of these issues on employee outcomes (Wagner & Spencer, 1996; Berrio). Unlike Berrio’s study, knowledge management initiatives were part of this study of the change effort. In addition, Berrio’s research was interested in studying factors that may account for variation among the organizational culture profile. Similarly, this case study was interested and explored related aspects for deviations in organizational culture profiles in combination with knowledge management profiles of sales professionals. Because of the small sample sizes, results were determined to be inconclusive.

Data Collection Procedures

This case study included strategies organized around data that was collected sequentially (explanatory), and concurrently (triangulation). Quantitative and qualitative data were collected and analyzed over a three-month time period from April 2005 through June 2005. Quantitative
data gathered began with a survey, followed by quantitative data analysis and then qualitative data collection through interviews, observation, and documents.

**Quantitative Data - Survey Instrument**

The first phase of the sequential mixed methods approach consisted of a questionnaire that was administered to all participants, 31 sales professionals, during a district sales team meeting in April 2005 at a Minneapolis facility of the organization involved in the study. The questionnaire took about 15 minutes to complete. The survey instrument included three sections: a Demographic Respondent Profile, an Organizational Culture Assessment Instrument (OCAI), and a Knowledge Management Assessment Instrument (KMAI), as shown in Appendix D.

**Demographic respondent profile.** The questionnaire gathered data from the sample that consisted of a modified version of the first component, a Demographic Respondent Profile. This data captured personal demographic characteristics of sales professionals within the e-business organization under study. This information summarized the uniqueness of the sample population and the demographic groups and variables as indicated in Table 1, as well as in the questionnaire (questions 1 through 9) that is shown in Appendix D. All participants were asked to complete the demographic section of the survey and remained anonymous. The researcher, an employee of the e-business under study attended the two-day district sales meeting, a meeting that consisted of training, and presentation of sales awards. The meeting included a formal agenda; however, this case study was not included on the agenda. Instead, sales management determined an appropriate time to announce the researcher during the meeting. The researcher introduced the research study, explained the purpose of the consent form, and provided instructions to the survey. In addition, the researcher with the help of management collected the consent form and survey.
Also, sales management provided additional comments, particularly on confidentiality, regarding the study.

Table 1a.  *Demographic Groups and Variables in Questionnaire*

<table>
<thead>
<tr>
<th>Question and variable</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender</td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td>Female</td>
</tr>
<tr>
<td>2. Age</td>
<td>20-29</td>
</tr>
<tr>
<td></td>
<td>30-39</td>
</tr>
<tr>
<td></td>
<td>40-49</td>
</tr>
<tr>
<td></td>
<td>50+</td>
</tr>
<tr>
<td>3. Education level</td>
<td>No college degree</td>
</tr>
<tr>
<td></td>
<td>Some college</td>
</tr>
<tr>
<td></td>
<td>College degree</td>
</tr>
<tr>
<td></td>
<td>Advanced college degree</td>
</tr>
<tr>
<td>4. Job title–sales</td>
<td>Sales manager</td>
</tr>
<tr>
<td></td>
<td>Sr. account executive</td>
</tr>
<tr>
<td></td>
<td>Account executive</td>
</tr>
<tr>
<td></td>
<td>Administration</td>
</tr>
<tr>
<td></td>
<td>Other</td>
</tr>
<tr>
<td>5. Length of time in company.</td>
<td>0-5 years</td>
</tr>
<tr>
<td></td>
<td>6-10 years</td>
</tr>
<tr>
<td></td>
<td>11-20 years</td>
</tr>
<tr>
<td></td>
<td>21+ years</td>
</tr>
<tr>
<td>6. Length of time in transportation industry.</td>
<td>0-5 years</td>
</tr>
<tr>
<td></td>
<td>6-10 years</td>
</tr>
<tr>
<td></td>
<td>11-20 years</td>
</tr>
<tr>
<td></td>
<td>21+ years</td>
</tr>
<tr>
<td>7. How much knowledge management training have you had with</td>
<td>none</td>
</tr>
<tr>
<td>this company.</td>
<td>1-10 hours</td>
</tr>
<tr>
<td></td>
<td>11-25 hours</td>
</tr>
<tr>
<td></td>
<td>26-50 hours</td>
</tr>
</tbody>
</table>
Organizational culture assessment instrument (OCAI). The “Competing Values Framework” (CVF), a theoretical model, was developed and validated by Cameron and Freeman (1991) from evidence of their study of organizational culture in 334 institutions of higher education, and from Cameron and Quinn’s (1999) research that contained their work an organizational culture framework. This framework refers to whether an organization has a predominant internal or external focus and whether it strives for flexibility and individuality or stability and control (Cameron & Quinn, 1999; Berrio, 2003). The competing values framework in this case study included construction of the organizational culture profile of a specific population of an e-business. Through the use of the second component, an Organizational Culture Assessment Instrument (OCAI), an organizational culture profile was drawn through the establishment of the organizations dominant culture type characteristics. The four dominant culture types of interest in this study include clan, adhocracy, hierarchy, and market. The OCAI is an instrument that lets an organization diagnose the dominant orientation based on these core culture types. It also allows an organization to diagnose their cultural strength, cultural type, and cultural congruence. The OCAI is validated by measuring six important dimensions of organizational culture: dominant characteristics, organizational leadership, employee management, organizational glue, strategic emphasis, and criteria for (judging) success (Cameron & Quinn, 1999). The OCAI used
in this study consisted of a five-point Likert scale, ranging from 1 \( (**\text{strongly agrees}**)\) to 5 \( (**\text{strongly disagrees}**)\), which addressed six questions regarding various components of organizational culture. Each question presented four alternatives, which represent the same quadrant of the framework (Lawson, 2004). The OCAI is an instrument that lets an e-business organization diagnose the dominant orientation based on these core culture types. It also allows an organization to diagnose their cultural strength, cultural type, and cultural congruence. In addition the OCAI is a public-domain document; therefore it was not necessary for the researcher to grant permission to utilize the instrument.

*Knowledge management assessment instrument (KMAI).* The third and final component of the instrument, the Knowledge Management Assessment Instrument (KMAI), determined the knowledge management profile of the specific population (sales professionals). This component of the questionnaire is based on the literature reviewed in Lawson’s research study. Lawson’s research indicated that knowledge management is a continuous process and spirally expands as further knowledge increases over time. Lawson’s study combined and refined processes of three researchers, Wiig (1997), Parikh (2001), and Horwitch and Armacost (2002), to develop the six dimensions described in a knowledge management cycle: knowledge creation, knowledge capture, knowledge organization, knowledge storage, knowledge dissemination, and knowledge application. Lawson’s research also indicated that organizations that actively implement knowledge management as a strategic advantage, must utilize all six of these processes to a varying degree (Lawson, 2004).

Similar to the OCAI, the KMAI also used the five-point Likert scale. This component of the survey instrument also contained six questions, whereas each question represents a process of the
knowledge management cycle. Each question contained four descriptive statements to assess the level of activity in the knowledge management cycle (Lawson, 2004).

According to Lawson (2004), this survey instrument, Assessment of Organizational Culture and Knowledge Management Initiatives Survey (excluding the revised first component of the Demographic Respondent Profile) includes and confirms validity and reliability. This questionnaire was first given to members and students of Nova Southeastern University who were conducting research on knowledge management. The questions were checked for appropriateness, readability, and comprehensiveness. Recommendations and corrections were then integrated into a revised questionnaire. A pilot study was also conducted at two financial institutions that were interested in knowledge management and planned to incorporate knowledge management practices into their organizations strategic plan. The results from this pilot study concluded there was a relationship between organizational culture and knowledge management (Lawson, 2004). In addition, management by the e-business organization under study reviewed the questionnaire prior to submission in order to optimize valid responses.

The questionnaire was distributed and administered during a district sales team meeting in April, 2005, in Minneapolis, Minnesota, during a two day district sales meeting at a facility of the organization under study. The questionnaire took approximately 15 minutes to complete by sales professionals of the e-business organization under study. Participants were also provided with a research consent form to sign, as illustrated in Appendix C, a brief introduction of the study, an explanation of the purpose of the study, and instructions on how to complete the survey. This information provided at the beginning of the questionnaire ensured a participants understanding of why they needed to complete the survey. The survey instrument, Assessment of
Organizational Culture and Knowledge Management Initiatives Survey, is included in Appendix D. The instructions included having each participant read each question and selecting a response that most closely reflected the most appropriate answer.

**Qualitative Data-Interviews**

The second phase of the sequential mixed methods approach pursued additional investigative questions, as shown in Appendix E, to gather more in-depth information that were developed upon analysis of quantitative data. The researcher conducted either telephone interviews or face-to-face interviews with the participants that filled out a consent form. The researcher conducted semi-structured telephone or face-to-face interviews with account executives and sr. account executives, and face-to-face interviews with sales managers and administrators in their naturalistic settings. The interviews consisted of generally open-ended questions that were few in number and intended to elicit view and opinions from participants (sales professionals). Dominant areas and themes emerged from analyzed data, which played an important role in the selection of questions used to better understand the relationship between organizational culture types and continuous knowledge management initiatives among sales professionals in the e-business organization under study. Questions began by explaining the dominant organizational culture type (market) that sales professionals work in, as indicated in the survey, and understanding why or why not participants agree. The researcher proceeded with an explanation of the dimension dominant in knowledge management initiatives, and understanding if the participant agreed or disagreed with the results. Interviews were recorded, observations documented, and notes were taken in order to determine emerging themes. In order to reduce potential bias, the researcher, an employee currently working among all participants of the e-
business organization under study, followed a standard template during the conduction of interview questions.

**Quantitative and Qualitative Data–Observations and Documents**

According to Cooper and Shindler, “observation is found in almost all research studies, at least at the exploratory stage” (2003, p. 409). Observation was ideal for this case study because of the exploratory nature of research in this study. Observation is known to overcome numerous deficiencies in question, and observation is the only method that will allow the researcher to gather specific types of information. Observation in this case study secured some information about people and activities that could not be captured from the survey. According to Cooper and Shindler, observation secures environmental context information and optimizes the naturalness of the research setting (2003).

The researcher took notes of the behavior and activities of participants, when applicable, during the collection of both quantitative and qualitative data. In these notes the researcher recorded, in a semi-structured means, actions and activities of participants, as well as where observations took place. Observations during the collection of quantitative data took place in a conference room at the e-business organization under study. Observation of qualitative data during face-to-face interviews took place at a facility of the e-business organization under study. Qualitative data was collected from telephone or face-to-face interviews conducted with account executives, and sr. executives in their naturalistic settings (e.g. car or home office) and in face-to-face interviews with managers and administers in their naturalistic settings at the e-business organization under study. The researcher engaged in various roles during observation of
collecting quantitative and qualitative data from non-participant to full participant during data collection (Creswell, 2003).

As an employee of the organization with the sales department, the researcher was familiar with knowledge management initiatives used by the organization under study and the knowledge management documents used by participants. Because of this, the researcher was easily able to identify with participant responses. The researcher also had easy access and availability to knowledge management initiative documents if further research was necessary.

Data Analysis Procedures

Quantitative and qualitative data collected and analyzed, through questionnaires, interviews, observations, and documentations reflected a triangulation strategy. A triangulation strategy ensured the validity and reliability of the case study, and provided the essence to better understand the relationship between organizational types and knowledge management initiatives and answer the research question. The quantitative and qualitative data analysis procedures and plan explored several components to focus on the descriptive, dominant findings, and correlation aspects of the research study.

Analysis in Mixed Methods

Analysis in mixed method research occurs both within the quantitative (descriptive and inferential numeric analysis) and the qualitative (description and thematic text and image analysis) approach, and often between both approaches. The sequential model in this case study presented this type of approach. Data analysis in mixed methods research includes steps to check the validity of both quantitative data and the accuracy of qualitative findings (Creswell, 2003). The researcher of this case study advocated for the use of validity and reliability procedures for
both the quantitative and qualitative phases of the mixed methods approach (Tashakkori & Teddlie, 1998).

The organization culture instrument: Organization Culture Assessment Instrument (OCAI) used in this case study was tested for validity and reliability in previous studies (Cameron & Quinn, 1999). Lawson’s survey instrument and research also confirmed that Lawson tested the Knowledge Management Assessment Instrument (KMAI) for validity and reliability. Lawson conducted the pilot survey, first on faculty members and students who studied knowledge management at Nova Southeastern University and secondly, through two financial institutions where knowledge management practices were being instituted. The reliability of the research instrument was concerned with consistency. Lawson’s study used Cronbach’s alpha to evaluate the internal consistency of the outcome across items through a pretest (Lawson, 2004).

The researcher also explored statistical data from the survey to reflect validity and reliability in this study. According to Anthony, “validity is an important part of grounded theory and naturalistic interviewing. Validity must reveal truth and the basis for applying this truth to allow judgments to be made about the procedures consistency and how neutral the findings or decisions are” (Anthony, 2003, p. 57). The researcher did abide by Anthony’s important comments in order to ensure validity during qualitative collection and analysis.

**Quantitative Analysis**

Upon completion of the data collection, the researcher explored the data of the survey to answer the research question, “How does organizational culture influence continuous knowledge management initiatives.” The data analysis process began with descriptive analysis, which provided a demographic profile of the participants (sales professionals) within the Minneapolis
sales district of the e-business organization under study. The data entailed information regarding participant’s gender, age, educational level, length of time in the company, length of time in the industry, role within the company, amount of knowledge management training within their organization, and whether or not participants are aware of knowledge management initiatives and knowledge management training within their company.

The researcher analyzed data through the creation of frequency tables for each of the questions within the KMAI and OCAI sections and reported dominant areas for further exploration. The researcher also explored categories of data for correlations to determine potential relationships between independent and dependent variables, which included determination of a dominant organizational culture type(s) and knowledge management dimension(s). Upon these determination factors, further exploration was generated through qualitative research.

Finally, the answers to the questionnaire were recorded and stored in reliable and secure databases that can only be accessed by the researcher. The questionnaire results provided emerging themes about the relationship between organizational culture and continuous knowledge management initiatives of sales professionals within the e-business organization under study. Upon analysis of emerging themes through quantitative data, further data collection and analysis occurred through interviews, observations, and documents.

Qualitative Analysis

According to Creswell, researchers need to mold data analysis beyond more standard approaches to specific types of qualitative research strategies (Creswell, 1998). An example, exemplified in this study included grounded theory, which entails logical steps (Creswell, 2003; Strauss and Corbin, 1990, 1998). These steps included development of categories of information
(open coding), the selection of one category positioning and applying it within a theoretical model (axial coding), and then explaining a story through linkage of these categories (Creswell, 2003). Case study is also exemplified in this study, which involved a specific description of the setting or individuals followed by analysis of data for themes or issues (Stake, 1995).

The logical steps in this case study included organizing and preparing data for analysis, which involved transcribing interviews, optically scanning material, typing notes, sorting and arranging data into different types depending on sources of information. The next step entailed reading through data to get a general sense of the information and to reflect the overall meaning of all of the information. The researcher began to take notes and record general thoughts. In the third step the researcher began analysis through detailing and a coding process, which involved taking text data or pictures, segmenting sentences (or paragraphs) or images into categories and labeling categories with terms. In the fourth step the researcher developed a description of the setting or people, as well as categories or themes for analysis, using the coding process. The researcher interconnected themes into a theoretical model, grounded theory. The next step presented a discussion on interconnecting themes and potentially presenting a process model, grounded theory. The final step in qualitative data analysis in this case study involved the interpretation or meaning of the data (Creswell, 2003) to better understand the relationship between culture types and knowledge management initiatives.

The constant comparison method approach is one approach used in qualitative research and this approach will also be used in this study. This approach begins with field notes, studying incidents, and comparing these incidents to other incidents of the phenomenon (Merriam, 1998). Data analysis includes a constant comparison method of categories of information and emergent
themes that can be compared and analyzed. The constant comparison method used in this study lead to continuous revision of interview questions as new information is received from participants (Williams, 2003). As raw data is collected and analyzed it was coded and put into categories that share common patterns and themes. Coding categories included context coding to enable the researcher to further define and categorize themes and patterns emerging from data collection (Bogdan & Biklen, 1998). This constant coding comparison and coding category method captured and categorized sales professional's perceptions in the e-business organization under study and provided the researcher with a better understanding of the relationship between organizational types and knowledge management initiatives, as well as an answer to the research question in this research case study.

Chapter Summary

This chapter discussed the case study, grounded theory approach, sequential explanatory strategy, and mixed methods design used in this research study. This chapter conversed about the collection and analysis of quantitative data (questionnaire) and qualitative data (face-to-face and telephone) interviews, observations, and documentations among sales professionals within the e-business organization under study in the transportation industry. This chapter described the survey instrument, Assessment of Organizational Culture and Knowledge Management Initiatives Survey, which included three components: Demographic Respondent Profile, Organizational Culture Assessment Instrument (OCAI), and Knowledge Management Assessment Instrument (KMAI). In addition, this chapter provided further information regarding interviews, observations, and documents that were used in the research study to assess the relationship between organizational culture and knowledge management. Finally, this chapter
discussed procedures, which included data collection and data analysis procedures to help find the answer to the research question under study. The next chapter, Data Collection and Analysis, discusses the data collection and analysis, which answers the research question, and provides a better understanding of the relationship between organizational culture and knowledge management initiatives.
CHAPTER 4. DATA COLLECTION AND ANALYSIS

Introduction

The purpose of this chapter, Data Collection and Analysis, is to present the data collected and analyzed that answers the research question: How does organizational culture influence continuous knowledge management initiatives in an e-business organization? To answer this question and to provide a better way to understand the value and the relationship between organizational culture and knowledge management initiatives in the e-business organization under study, the researcher used a grounded theory approach, mixed methodology design, and sequential explanatory strategy. This chapter presents a more in-depth examination of the sequential explanatory process and provided quantitative and qualitative data results that were gathered and analyzed from sales professionals within an e-business organization in the transportation industry.

Quantitative Data Collection

Questionnaires

This case study included the collection of quantitative data through questionnaires. The quantitative data collection of this study was conducted in April 2005 on the second day of a two-day sales meeting at a conference room facility of the e-business organization under study. Sales management introduced the researcher at a time feasible to the meeting scheduled and at their discretion. Upon introduction of the researcher, the researcher verbally provided a brief summary of the research case study and the reason why the study was being conducted to sales professionals as explained in the consent form and the cover page of the questionnaire (see Appendix C and Appendix D). During this time management distributed the consent form and
the questionnaires to 31 sales professionals from three different sales teams. There were 31 sales professionals that were asked to partake in the study, and 26 (84%) sales professionals participated and completed the survey, as well as signed the consent form. The researcher collected the questionnaires and consent forms at the end of the meeting on the second day. The participants were allotted approximately 15 minutes to complete the survey and through the remainder of the meeting, which lasted about two hours.

The demographic data collected from the survey included information about the participants gender, age, educational level, job title, length of time in the company, length of time in the industry, how much knowledge management training participants have had within the company, whether or not participants knew if knowledge management initiatives existed within their organization, and whether or not participants were aware of knowledge management training within their organization. The organizational culture section (questions 10-15) collected data that determined the dominant organization culture type, and the knowledge management section (questions 16-21) gathered data pertinent to knowledge management initiatives of the e-business organization under study.

Quantitative Data Analysis

The second part of the first phase of the sequential explanatory strategy included the analysis of quantitative data from the questionnaires. This phase provided the researcher with a way to gain dominant themes of the organizational culture type(s) and continuous knowledge management initiatives of sales professionals within the e-business organization under study. This phase consisted of a statistical analysis overview that used the statistical analysis tool, Statistical Package for Social Sciences (SPSS). The quantitative data collected from all 26
surveys were valid; however some data may have been missing because participants may have missed or overlooked a question. Missing data did not affect analysis; however data indicated throughout the study may vary because of missing data. In addition, frequency distributions, means, standard deviations, and histograms, were run on all survey questions to describe the data and identify areas for further qualitative research. A descriptive analysis of the demographic data (questions 1-9) from the questionnaire enabled the researcher to develop a demographic profile of the study participants.

*Questionnaire – Demographic Profile*

The first four questions of the survey’s demographic profile reflected the participant’s gender, age, education level, and job title (see Table 2). Description of the sample is as follows: there were sixteen men (61.5%) and ten women (35.5%) who participated in the study, three were between the ages of 20-29 (11.5%), nine between the ages of 30-39 (34.6%), eleven between the ages of 40-49 (42.3%), and three over 50 (11.5% each). Educational levels were as follows: one had no college degree (3.8%), three had some college (11.5%), eighteen had a college degree (69.2%), and four that had advanced college degrees (15.4%). Finally, job titles of participants were as follows: two sales managers (7.7%), fourteen sr. account executives (53.8%), nine account executives (34.6%), and one sales administrator (3.8%).

Table 2a. *Frequency Distributions–Demographic Questions*

<table>
<thead>
<tr>
<th>Question and variable</th>
<th>Category</th>
<th>$f$</th>
<th>Valid</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants ($n = 26$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Gender</td>
<td>Male</td>
<td>16</td>
<td>.62</td>
<td>.62</td>
</tr>
</tbody>
</table>
Table 2b. *Frequency Distributions–Demographic Questions*

<table>
<thead>
<tr>
<th>Female</th>
<th>.36</th>
<th>1.0</th>
</tr>
</thead>
</table>

2. Age

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Frequency</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-29</td>
<td>3</td>
<td>.11</td>
</tr>
<tr>
<td>30-39</td>
<td>9</td>
<td>.35</td>
</tr>
<tr>
<td>40-49</td>
<td>11</td>
<td>.42</td>
</tr>
<tr>
<td>50+</td>
<td>3</td>
<td>.12</td>
</tr>
</tbody>
</table>

3. Education level

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Frequency</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>No college degree</td>
<td>1</td>
<td>.04</td>
</tr>
<tr>
<td>Some college</td>
<td>3</td>
<td>.12</td>
</tr>
<tr>
<td>College degree</td>
<td>18</td>
<td>.70</td>
</tr>
<tr>
<td>Advanced college degree</td>
<td>4</td>
<td>.15</td>
</tr>
</tbody>
</table>

4. Job title (sales)

<table>
<thead>
<tr>
<th>Title</th>
<th>Frequency</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales manager</td>
<td>2</td>
<td>.08</td>
</tr>
<tr>
<td>Sr. account executive</td>
<td>14</td>
<td>.54</td>
</tr>
<tr>
<td>Account executive</td>
<td>9</td>
<td>.35</td>
</tr>
<tr>
<td>Administration</td>
<td>1</td>
<td>.04</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Further demographics (see Table 3) as indicated from question five showed that the majority of sales professionals have worked for the company between 0-5 years (38.5%), followed by 11-20 years (34.6%), and 6-10 years (26.9%). 35.8% of the participants worked within the transportation industry for 11-20 years, 34.6% of the participants worked in the transportation industry for 0-5 years, 19.2% worked in the transportation industry for 6-10 years, and 7.7% worked for the transportation industry over 21 years.

Table 3a. *Frequency Distributions–Length of Time with Company and Transportation Industry Questions*

<table>
<thead>
<tr>
<th>Question and variable</th>
<th>Category</th>
<th>$f$</th>
<th>Valid</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants ($n = 26$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The last three questions (questions 7-9) of the demographic data (see Table 4) revealed the amount of knowledge management training participants had with the company. Specifically, it indicated whether or not participants knew if knowledge management initiatives existed in their e-business organization, and if so, whether or not they knew if training existed for the continuous knowledge management initiatives provided within the company. The demographic data results indicated that 50% of the participants had 51 or more hours of knowledge management training. In addition, participants indicated that they knew their organization had continuous knowledge management initiatives (92.3%) and their organization offered training for these continued knowledge management initiatives (88.5%).

Table 3b. *Frequency Distributions—Length of Time with Company and Transportation Industry Questions*

<table>
<thead>
<tr>
<th>Question and variable</th>
<th>Category</th>
<th>f</th>
<th>Valid</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. Length of time in company.</td>
<td>0-5 years</td>
<td>10</td>
<td>.39</td>
<td>.39</td>
</tr>
<tr>
<td></td>
<td>6-10 years</td>
<td>7</td>
<td>.27</td>
<td>.65</td>
</tr>
<tr>
<td></td>
<td>11-20 years</td>
<td>9</td>
<td>.35</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>21+ years</td>
<td>0</td>
<td>.0</td>
<td>1.0</td>
</tr>
<tr>
<td>6. Length of time in transportation industry.</td>
<td>0-5 years</td>
<td>9</td>
<td>.35</td>
<td>.35</td>
</tr>
<tr>
<td></td>
<td>6-10 years</td>
<td>5</td>
<td>.19</td>
<td>.54</td>
</tr>
<tr>
<td></td>
<td>11-20 years</td>
<td>10</td>
<td>.39</td>
<td>.92</td>
</tr>
<tr>
<td></td>
<td>21+ years</td>
<td>2</td>
<td>.8</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Table 4a. *Frequency Distributions—Knowledge Management (KM) Training and Initiatives Questions*

<table>
<thead>
<tr>
<th>Question and variable</th>
<th>Category</th>
<th>f</th>
<th>Valid</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants (n = 26)</td>
<td>0 hours</td>
<td>7</td>
<td>.27</td>
<td>.27</td>
</tr>
</tbody>
</table>
Table 4b. *Frequency Distributions–Knowledge Management (KM) Training and Initiatives Questions*

<table>
<thead>
<tr>
<th>had with this company.</th>
<th>1-10 Hours</th>
<th>11-25 Hours</th>
<th>26-50 Hours</th>
<th>51+ Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>.15</td>
<td>0.0</td>
<td>.08</td>
<td>.50</td>
</tr>
<tr>
<td></td>
<td>.42</td>
<td>.42</td>
<td>.50</td>
<td>1.0</td>
</tr>
</tbody>
</table>

8. My organization has continuous KM initiatives.
   - Yes: 24, .92, .92
   - No: 2, .08, 1.0

9. My organization has KM training in place for continuous KM initiatives.
   - Yes: 23, .89, .89
   - No: 3, .12, 1.0

An overview of the demographic profile results indicated the majority of the sales professionals that completed the survey consisted of men (61.5%) between the ages of 40-49 (42.3%) that have college degrees (69.2%), are sr. account executives (53.8%) that have worked for the company under study for 0-5 years (38.5%) or 11-20 years (34.6%), and have worked in the transportation industry for 11-20 years (38.5%) or 0-5 years (34.6%). In addition, these sales professionals have taken more than 51+ hours (50%) of knowledge management training, and know that their organization has knowledge management initiatives, as well as offers training for continuous knowledge management initiatives in their organization.

*Questionnaire–Organizational Culture Assessment Instrument*

The researcher analyzed the OCAI section (questions 10-15) through statistical data. Frequency data were run (see Table 5) to help determine dominant areas for further exploration in the qualitative data collection phase. The survey in this case study was set-up with lower scores of the answers to the questions in the questionnaire to mean the more dominant the organization culture type in the organization (see Appendix D). The dominant areas from
quantitative data results, as indicated in Table 5, reflects the dominant organizational culture type of sales professionals in this case study be a market type ($M = 11.08$), followed by hierarchy ($M = 14$) and the least dominant organization culture type as clan and adhocracy ($M = 16.35$ each).

This indicates that sales professionals, participants of the survey, felt that the most dominant culture type they work in is a market culture type, followed by hierarchy, and clan and adhocracy, which tied for third and fourth place. For the market type variable, the distribution of responses average score from six questions (questions 10-15) and 25 participants (one participant did not answer or unintentionally missed some questions) is: 1.77, 2.23, 1.96, 1.96, 1.72, and 1.46. The mean (11.08 for market organizational culture type) represents the arithmetic average of the organizational culture type variable from the six values, therefore the mean for the market organizational culture type is: $1.77 + 2.23 + 1.96 + 1.96 + 1.72 + 1.46 = 11.1$.

The standard deviation is important in this case study as it reveals the amount of variability. According to Niles, “the standard deviation is a statistic that tells you how tightly all the various examples are clustered around the mean in a set of data” (robertniles.com, para. 8). In this case study the market type organization culture variable had a computed variance or standard deviation of 4.07 (see Table 5) from six values (questions 10-15).

Table 5a. Organization Culture Assessment Instrument (OCAI)–Means and Standard Deviations

<table>
<thead>
<tr>
<th>Culture Type</th>
<th>$M$</th>
<th>$SD$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants (n = 26-clan, adhocracy and hierarchy and n = 25-market)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clan</td>
<td>16.35</td>
<td>4.84</td>
</tr>
<tr>
<td>Adhocracy</td>
<td>16.35</td>
<td>5.40</td>
</tr>
</tbody>
</table>
Table 5b. *Organization Culture Assessment Instrument (OCAI)–Means and Standard Deviations*

<table>
<thead>
<tr>
<th>Organization Type</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market</td>
<td>11.08</td>
<td>4.07</td>
</tr>
<tr>
<td>Hierarchy</td>
<td>14.0</td>
<td>3.73</td>
</tr>
</tbody>
</table>

*Note.* The sample size \((n = 25)\) for the organization culture type market is different than the organizational culture type for clan, adhocracy and hierarchy \((n = 26)\) because one participant missed questions that pertained to market.

*Questionnaire–Knowledge Management Assessment Instrument*

The researcher also analyzed the KMAI section (questions 16-21) in a similar manner as the OCAI section through statistical data. Again, the frequency distributions were analyzed by the researcher; however were not reported in this study because the means and standard deviations (see Table 6) reported the results to determine the dominant areas for further exploration in the next sequential explanatory strategy phase, qualitative data collection. The dominant knowledge management dimensions from quantitative data results, and as indicated in Table 6, reflect the dissemination of knowledge \((M = 7.15)\) to be dominant among sales professionals in this study, followed by storage \((M = 8.08)\), application \((M = 8.27)\), creation \((M = 9.54)\), organization \((M = 10)\), and capture \((M = 11)\). This means that participants of the survey thought the dominant way sales professionals receive knowledge management initiatives is through dissemination of knowledge. For the dissemination knowledge management initiative variable, the distribution of responses average score from four questions (20A-D) and 26 participants is: 1.23, 1.96, 1.69, and 2.27. The mean \((7.15)\) represents the arithmetic average of the dissemination of knowledge variable from the four values, therefore the mean for dissemination of knowledge is: \[1.23 + 1.96 + 1.69 + 2.27 = 7.15.\]
The standard deviation is also important in the KMAI section of the survey and as it pertains to this case study because it reveals the amount of variability and indicates the best measure of spread. In this case study the dissemination of knowledge variable had a computed variance or standard deviation of 2.51 (see Table 6) from four values (questions 20A-D).

Table 6. Knowledge Management Assessment Instrument (KMAI)–Means and Standard Deviations

<table>
<thead>
<tr>
<th>KM Dimensions</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creation</td>
<td>9.54</td>
<td>2.66</td>
</tr>
<tr>
<td>Capture</td>
<td>11.0</td>
<td>3.05</td>
</tr>
<tr>
<td>Organization</td>
<td>10.0</td>
<td>2.43</td>
</tr>
<tr>
<td>Storage</td>
<td>8.08</td>
<td>2.64</td>
</tr>
<tr>
<td>Dissemination</td>
<td>7.15</td>
<td>2.51</td>
</tr>
<tr>
<td>Application</td>
<td>8.27</td>
<td>2.15</td>
</tr>
</tbody>
</table>

Note. The sample size (n = 25) for the organization and storage is different than the creation, capture, dissemination, and application (n = 26) because one participant missed answers that pertained to these questions.

Questionnaire–Correlation between OCAI and KMAI

This phase included quantitative analysis that used non-parametric tests, which included Kendall’s tau to study possible correlations between variables, and Mann-Whitney to check for differences between means. The results of the analysis are highly unlikely to be valid because of the small sample size (26 participants); however determined potentially valuable therefore
reported in this study. Data analysis generated by using Kendall’s tau determined if there were any significant correlations among demographic data and other quantitative data (see Appendix F). The researcher was able to determine that there was a significant correlation (.03, \( p < .05 \)) between the age of sales professionals and the organizational type clan. In addition, the research found that significant correlation (.07, \( p < .05 \)) was imminent between the age of sales professionals and the organizational type adhocracy.

The researcher also reported the correlations (non-parametric) between the four types of organizational culture (clan, adhocracy, market, and hierarchy) and six dimensions of knowledge management initiatives (creating, capturing, organization, storage, dissemination, and application). The researcher ran correlation tests that used Kendall’s tau between organizational culture and knowledge management initiatives (see Table 7) and results were similar to those reported in Lawson’s study. Results of these correlations, as shown in Appendix F, reflected significant correlation coefficient scores for clan, adhocracy and market (respectively) of .335, .377 and .448. The organizational culture type, hierarchy, did not reveal a significant correlations coefficient score (.225) to knowledge management, like the other three organizational culture types (clan, adhocracy, and market), as shown in Table 7.

Table 7a. *Nonparametric Correlations (Kendall’s Tau)–OCAI and KMAI*

<table>
<thead>
<tr>
<th>Clan Score</th>
<th>Clan Correlation Coefficient</th>
<th>Adhocracy</th>
<th>Market</th>
<th>Hierarchy</th>
<th>KMAI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.0</td>
<td>.64**</td>
<td>.52**</td>
<td>.32*</td>
<td>.34*</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.00</td>
<td>.00</td>
<td>.03</td>
<td>.04</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>26</td>
<td>26</td>
<td>25</td>
<td>26</td>
<td>24</td>
</tr>
</tbody>
</table>
Table 7b. *Nonparametric Correlations (Kendall’s Tau)–OCAI and KMAI*

<table>
<thead>
<tr>
<th>Score</th>
<th>Correlation Coefficient</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhocracy Score</td>
<td>.64**</td>
<td>.00</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>1.0</td>
<td>.05</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>.29</td>
<td>.07</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>.27</td>
<td>.01</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>.38*</td>
<td></td>
<td>24</td>
</tr>
<tr>
<td>Market Score</td>
<td>.53*</td>
<td>.00</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>.29</td>
<td>.05</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>1.0</td>
<td>.07</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>.29</td>
<td>.01</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>.45**</td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>Hierarchy Score</td>
<td>.32*</td>
<td>.03</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>.27</td>
<td>.07</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>.29</td>
<td>.07</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>1.0</td>
<td>.14</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>.23</td>
<td></td>
<td>24</td>
</tr>
<tr>
<td>KMAI Score</td>
<td>.34*</td>
<td>.03</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>.38*</td>
<td>.01</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>.45**</td>
<td>.14</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>.23</td>
<td>.10</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>24</td>
</tr>
</tbody>
</table>

*Note.* * Significant at the 0.05 level (2-tailed). **Significant at the 0.01 level (2-tailed).

In conclusion, the researcher analyzed the quantitative data within the KMAI and OCAI sections (questions 10-21) of the questionnaire through analysis of statistical data of frequency distributions, and reported means and standard deviations, as indicated in Table 5 and Table 6. This was completed, so that dominant areas could be determined for further exploration in the next sequential explanatory strategy phase, qualitative data collection. The themes generated from the quantitative (statistical) data of this study indicated that sales professionals work in a market type organizational culture where knowledge management initiatives are primarily processed via the dissemination of knowledge to sales professionals.
Qualitative Data Collection

The second phase of the sequential explanatory strategy began with qualitative data collection that initiated the researcher with a better understanding of the relationship between organizational culture and continuous knowledge management initiatives of sales professionals within the e-business organization under study. Qualitative data was collected through telephone or face-to-face interviews with account executives and sr. account executives and face-to-face interviews with sales managers and administrators in naturalistic settings. The triangulation strategy and collection of qualitative data was completed through observations and other pertinent documents.

Interviews

The first section in the second phase of the sequential explanatory strategy included face-to-face or telephone interviews that were conducted by the researcher from the organizations facility from May 20, 2005 through June 8, 2005. The researcher conducted 24 interviews including eight interviews from three different teams of sales professionals, which lasted about 15 minutes each. Two sales professionals, one from team one (female, sr. account executive) and one from team three (male, sr. account executive) from the 26 sales professionals that participated in the survey, no longer worked for the company. There were seven face-to-face interviews and 17 recorded telephone interviews conducted in the participant’s naturalistic setting. The interviews included a brief overview of the survey results and five follow-up questions (see Appendix E) that were developed by dominant dimensions (see Table 5 and Table 6) derived from the analysis of quantitative (statistical) data.
All data from the interviews, which included the participant’s name and telephone number, were alphabetically organized and coded by teams (three) in a Microsoft Excel spreadsheet. All 26 participants, except for two that were no longer with the company, that took the survey agreed to participate in the interview. Six participants were not able to interview during the researchers initial call to them; however an interview was rescheduled and completed at a later time. In order to prevent bias, the researcher allowed participants to select the type of interview they would like have, telephone or face-to-face, in a mutually agreed upon location.

The first step of the raw data collection process was to code data. The next step was to put this data into categories that shared common patterns and themes. The constant coding comparison and category coding method let the researcher capture and categorize sales professional’s perceptions in the e-business under study. This method provided the researcher with the answer to the research question, and provided a better understanding of the relationship between organizational types and knowledge management initiatives. All of the data was coded with the aid of Excel software to identify emerging themes. Categories of coded data and meaningful information emerged from the interview data and the researcher was able to move to the final sequential explanatory phase, qualitative data analysis.

Qualitative data analysis from the five follow-up questions, as shown in Appendix E, asked by the researcher during the interviews exposed some good data. The first question revealed that 100% of the participants thought the survey data exemplified the type (market) of organizational culture they work in. Sales professionals indicated that in order to be successful in the transportation industry, particularly because of the competitiveness, that this type (market) of organizational culture is effective and vital to this organization. In question two, participants
were asked if the dissemination of knowledge management initiatives were important to their success. Data revealed that 100% of the sales professionals indicated that the dissemination of knowledge is important to their success. Participants also discussed why both human and technology aspects are important to the dissemination of knowledge. Question three pertained to specific knowledge management initiatives that are important to a sale’s professional. Data revealed that 11 participants (46%) stated that a variety of knowledge management initiatives are important to be successful. In addition, ten participants (42%) indicated that there are too many knowledge management initiatives and there is not enough time to learn everything. The top knowledge management initiatives that participants indicated as important to their success were training, district conference calls, customer tools, sales information obtained from the intranet, and initiatives that included customers (see Table 8 for the entire list). Finally, in questions four and five, all 24 participants (100%) agreed that knowledge management initiatives are important in the type (market) of organizational culture of this study and that knowledge management initiatives are effective strategies that enable long-term success, enhance value, and help to increase competitive advantage with the e-business organization under study.

Observations and Documents

Observations were noted by the researcher throughout the quantitative and qualitative process time frame of April 2005 through June 2005. During this period of time the researcher was able to note pertinent observations because the researcher was also an employee of the organization. The ability to partake in knowledge management initiatives among sales professionals, and be an employee in the type (market) of organizational culture of this study helped the researcher with a better understanding of participant answers and what they meant during the interview process.
As an employee of the organization, the researcher was able to actively participate, observe, and easily obtain access to various knowledge management initiatives, particularly attainable via the Internet or Intranet, used by sales professionals. This provided the researcher with a better understanding of knowledge management initiatives and the specific type (market) of organizational culture executive management strategically required of sales professionals in order to be competitive in the e-business organization.

Qualitative Data Analysis

The final phase of part two in the sequential explanatory design included qualitative data analysis. This final step includes the analysis of qualitative data analysis and involves interpretation or meaning of the data to better understand the relationship between culture types and knowledge management initiatives. This phase of the study provided the researcher with an in-depth understanding of the relationship between organizational culture and continuous knowledge management initiatives of sales professionals within the e-business organization under study. The qualitative data analyzed included data from telephone or face-to-face interviews with account executives and sr. account executives and face-to-face interviews with sales managers and administrators in naturalistic settings, observations, and other pertinent documents. The analysis of qualitative interview data was vital to the success of this case study and was critical to understand because it helped interconnect themes into a theoretical model, grounded theory.

Interviews–Emerging Themes

The qualitative data analysis of telephone and face-to-face interviews in this research study included the constant analysis and comparison of categories of coded information, emergent
themes, and incidents of the phenomenon. In order to better understand the relationship between organizational culture type (market) and continuous knowledge management initiatives of sales professionals within this e-business organization in the transportation industry, the researcher began with the analysis and thorough understanding of the interview participants (sales professionals) perceptions of the type of organizational culture type. Once this was clearly understood by the researcher, the researcher proceeded to analyze the participant’s perceptions of continuous knowledge initiatives.

Organizational culture type-market. Analysis of qualitative data from interviews indicated that all 24 participants (sales professionals) believed they worked in a market type organizational culture and confirmed the market culture as an organization that focuses on external positioning with a need for stability and control. Participants agreed the major focus of a market type culture includes conducting transactions (exchange, sales, and contracts) with other constituencies and developing competitive advantage, where primary objectives of their market culture are concerned with profitability, bottom line results, strong market niches, stretch targets, and secure customer bases. The core values that dominate market type organization are productivity and competitiveness. The type of culture is a results-oriented workplace and the leadership type includes that of hard-driving, competitive, and productive management with an emphasis to win. Success is defined in terms of market share and penetration and outpacing the competition and market leadership are important. The long-term focus is on competitive actions and achievement of measurable goals and targets (Cameron & Quinn, 1999).

Many of the comments from participants included remarks about productivity and results, the competition, and being market leaders in the transportation industry. Some of the statements
mentioned by sales professionals on competition and market leaders were, “we are market driven, we want to be in first place not third place”, “we are down to only three competitors, so we are very competitive and price driven”, “the more competitive we are the more money we are making, which makes everyone happy”, “just about every asset of the job is to gather information and utilize information to set yourself against the competition” and “we are market leaders.” In addition two participants commented on the importance of productivity and results, such as “we have to measure to reflect results”, and “it is very important that it is the way it is, if not, we would struggle for results.” Overall, the qualitative analysis of interviews and comments made by participants reflect that sales professionals within this e-business organization within the transportation industry agree that they work in a market type organizational culture.

E-business organization. In congruence with a very market driven culture of competitiveness and results-oriented, sales professionals indicated that they work in an e-business organization that constantly evolves and continually changes. The environment is fast-paced and a substantial amount of business activity is completed via electronic means. For sales professionals this includes e-business through the use of secure environments such as intranets and extranets, wireless and handheld devices, email, and the Internet. Interviewed participants commented that “it is important to keep up to date in order to have an edge over our competition”, “we want to be kept up to date with changes and new things” and “the changes and demands of this job are typical in this type of industry.” The comments of these sales professionals were in line with what it takes to have a successful e-business organization as discussed in Chapter 2. This small sample of sales professionals (24) represents a very small percentage of the more than 3,000
sales professionals that work in this e-business organization of more than 250,000 employees in the transportation industry.

Knowledge management initiatives. Qualitative data analyzed on knowledge management initiatives indicated that sales professionals believed that knowledge management initiatives were important to their job and are effective in a controlled environment. Eleven participants (46%) commented that a variety of knowledge management initiatives were essential to their job. Some comments from participants included that you “must have continuous knowledge management initiatives in order to be successful”, and “the more knowledge you have the better.” One participant commented that “we are seen as the industry leader in knowledge” and “we are seen as the most knowledgeable sales force, so we have no choice but to be successful.” Participant comments like this provided the researcher to better understand the competitiveness in the transportation industry and also to better understand sales professional’s perceptions of how important knowledge management initiatives are in a market type organization culture, particularly to have competitive advantage.

Many participants understood the importance of knowledge management initiatives; however, sales professionals were concerned with the inundation of them, the time constraints involved with them, and being overloaded with too many of them. One participant commented on how overwhelmed they were with knowledge management initiatives and stated that, “the amount will stifle us.” Some of the comments analyzed included, “no way can you process all information”, and “we receive knowledge from so many divisions and so many angles that you can't do it all.” There were ten sales professionals (42%) that commented there were too many
knowledge management initiatives in the workplace, and there was not enough time to learn all of them.

There were also several comments that knowledge management initiatives were being disseminated to sales professionals from too many different areas within the e-business organization under study. One participant commented on the need for management and those who disseminate knowledge management initiatives to understand the “real world of sales.” Some of these knowledge management initiatives mentioned by sales professionals in this case study are shown in Table 8.

Table 8. Knowledge Management (KM) Initiatives

<table>
<thead>
<tr>
<th>KM Initiatives of Sales Professionals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conference calls and national sales conference</td>
</tr>
<tr>
<td>Online and onsite training</td>
</tr>
<tr>
<td>Customers and various customer and marketing tools</td>
</tr>
<tr>
<td>Meetings and coffee talks</td>
</tr>
<tr>
<td>Market council, marketing department, and various other departments</td>
</tr>
<tr>
<td>Pulse (management) survey</td>
</tr>
<tr>
<td>Internet, intranet, communications and media (e.g. Sales Brief newsletter, webcasts, emails, competitive web sites, newspapers, magazines, television, voicemails, broadcasts, sales hotline).</td>
</tr>
<tr>
<td>Accountability/quarterly performance reviews</td>
</tr>
<tr>
<td>Sales and customer reports</td>
</tr>
<tr>
<td>People in the industry, subject matter experts, sales people, management, support, etc.</td>
</tr>
</tbody>
</table>
Overall, 100% of the participants agreed that the knowledge management initiatives process was dominated by the dissemination of knowledge. Four participants explained that although they felt the dissemination of knowledge management initiatives was dominant; they did not necessarily think that it was the most effective means to gain knowledge. All four participants stressed the importance of interaction and would like to have the opportunity to strategize and share more gained and learned knowledge with management, peers, and customers.

Technologies versus human capital. Chapter 2 discussed the importance of human capital of knowledge management and how technologies are used to enhance knowledge management initiatives. To reiterate, according to Liebowitz (1999, p. 4-1), “knowledge management is 80% about people and cultural change rather than technical development.” According to the qualitative analysis of this study, 46% of the participants indicated that both technology and humans are important to knowledge management initiatives, 38% indicated that just human aspects are important to the dissemination of knowledge management initiatives, 17% indicated that just technology is important to the dissemination of knowledge management initiatives. One participant pointed out that, “both technology and human aspects have a purpose”, and explained how both technology and humans are important aspects to the way knowledge is gained in order to be effective, productive, and successful as a sales professional. In addition, if sales professionals had to choose between people or technology as being more important to knowledge management, the qualitative data analyzed in this study indicated the balance of knowledge management to be about 58% about people and 42% about technology. One sales professional comment was that technology enhances the dissemination of knowledge; however, the information disseminated is not received in the same warm way that a human may deliver it.
Several other participants commented that technologies, particularly the Internet and Intranet are convenient and available all of the time. In addition, sales professionals comments were that the Internet is the “driving force to so much information” “the way to get new information”, the way to “make it easier”, and the means to “pinpoint information very quickly”; however, “sometimes you have to contact someone just to find information on the Internet.” In addition, three sales professionals mentioned “real time” and how there is potentially a gap to receive “real time” information from technology versus human knowledge. Sales professionals discussed how critical this “real time” gap may be in order for sales professionals to receive the knowledge they need to do their job effectively and efficiently.

The qualitative data analysis from this study indicated the impact technologies provided toward the success of knowledge management initiatives and reflected that they were slightly more important by the sales professionals in this case study compared to those indicated by Liebowitz. It was also clear that in order for knowledge management initiatives to be lucrative in an e-business organization, according to sales professional’s perceptions, human perspectives and human interactions are vital for long-term success.

*Knowledge sharing and learning.* The qualitative data analysis in this study indicated that knowledge sharing and learning were two emerging themes very important to sales professionals. Participants stressed the importance of sharing knowledge and experiences and learning from each other. One sales professional remarked that, “you are competitive with peers on your team, so why would you want to share knowledge?” Ironically he said that, “sharing knowledge is very important in our type of organizational culture to gain knowledge of the competition.”
Further data analyzed indicated that ten sales professionals (42%) would like to have the opportunity to share more knowledge and learn from each other through more team interaction. One participant indicated that the best opportunity to do this would be during the weekly or bi-weekly conference call. One suggestion by a participant was to have open employee forums and discussions “on how they were successful in closing business” or brainstorm sessions on strategies they used to “go after their top accounts.” One participant commented that they would learn more and it would be much nicer if more time were spent on conference calls on how people closed an account, and strategies they used on how they did it, instead of a manager that just gives you a pat on the back and comments “congratulations Mary.” Overall, data analysis indicated that conference calls are important to sales professionals and that conference calls could provide even more value to them if more knowledge where shared among the network of peers.

In addition, sales professionals commented on the importance of subject matter experts (SMEs) or specialists. Two participants pointed out how SMEs provide opportunities to learn critical information, create an environment to share knowledge, and provide value to their jobs. One participant indicated that they have to be a “jack of all trades, and a master of none” to be successful in their job; therefore SMEs are important to their success. The ability to be an expert, as explained by the participant is literally impossible; therefore the opportunity to have SMEs and know who they are would help alleviate pressure to know everything and be an expert in all areas required to be a successful sales professional.

Customers. A substantial theme from this study was that participants indicated that customers are vital to knowledge management initiatives. Several sales professionals pointed out that
customers are critical to the knowledge they learn and how they gain the experience required to be successful at their job. Eleven sales professionals (46%) discussed how they “learn by doing”, “learn from being with a customer” or that “it is easy to learn by being put in a situation with a customer.” One example of how a participant may learn from their customer is by resolving a problem or finding a solution. One participant pointed out “the main reason you need to learn is so that you can service your customers and provide customer needs, this forces you to learn so you can solve through experience.”

Participants also commented that they would like to have more opportunities to learn more knowledge from their customers, as well as share the experiences and knowledge they learn with others, such as their peers. One main reason sales professionals pointed out as to why knowledge sharing and learning from each other may be important was because of the competition. One participant commented that, “customers are not willing to share pricing, but are willing to share different things they do with competitors.” Another participant made an excellent point and stated “knowledge management is important to both internal and external customers in a competitive environment.”

In addition, sales professionals indicated the importance to be knowledgeable in front of customers and the importance to continually learn to be successful with customers. One participant commented that, “you must be knowledgeable about products and if you do not position properly, than you will not be knowledgeable in front of your customer.” Other sales professionals commented that “you can't be prepared for all customer questions; however, the more you know the more successful you will be”, “everything we learn we have to explain or
convey to the customer”, and “we have to turnaround what we learn and communicate it back to someone, such as a manager or customer.”

The emerging themes from the qualitative data analysis indicated from sales professionals within this e-business organization perceive the type of organizational culture, market they work in to influence knowledge management initiatives, which are vital to their success. In addition, they perceive that knowledge management initiatives are primarily disseminated to them primarily through the enhancement of technologies; however believe this may not be the most effective means, particularly because technologies may provide a “real time” gap compared to human interaction. Overall, the major theme from sales professionals was that human interaction is still the best means to provide effective knowledge management initiatives. Sales professionals commented that the most effective knowledge management initiatives are those that involve sharing knowledge and learning from other peers, management, subject matter experts, and customers.

Observations and Documents

The analysis of qualitative observations and documents were critical to this case study. The researcher, an employee of the organization, participated and observed a variety of continuous knowledge management initiatives among sales professionals within this e-business organization. Analysis of noted observations and participation by the researcher of continuous knowledge management initiatives among sales professionals helped the researcher understand the variety of knowledge management initiatives and the amount of knowledge management initiatives, as shown in Table 8, that participants discussed during the interview process. Analysis of noted observations and participation of knowledge management initiatives also
helped the researcher understand why participants indicated that technologies and human aspects are important to knowledge management initiatives.

The documents analyzed by the researcher in this case study reflected the strategic direction executive management required among sales professionals within the organization in order to be successful. In addition, documents were analyzed about knowledge management initiatives used among sales professionals. Two vital pieces of information analyzed by the researcher included documents that indicated the strategy of the organizational culture type, market, by executive management and information about knowledge management initiatives that have been implemented within the organization since 2001. Because the researcher was an employee of the organization under study, documents were easily attainable and assessable and located via the Internet or Intranet.

One critical document reviewed and analyzed by the researcher located on the Intranet included a video on demand (VOD) by the senior vice president of sales, and pertained to organizational culture strategies for sales professionals. This document was important to the researcher because it helped the researcher understand the type (market) of organizational culture executive management wanted among sales professionals in this e-business organization. Another vital piece of information collected for this case study included information about knowledge management initiatives used within the organization under study. This information was important to the researcher because it provided the researcher with an awareness of the importance of knowledge management initiatives to the organization under study as well as provided the researcher with information as to why the organization has a large variety and so many knowledge management initiatives among sales professionals. Unfortunately, because of
company confidentiality the researcher was unable to share more information about these two particular, but vital documents in this study.

The researcher also reviewed another important document to this case study. The document, an article in Chief Executive called *Leader of the Pack*, helped the researcher to better understand how the organizational culture of the e-business under study may influence knowledge management initiatives (Holstein, 2004). Overall, the analysis of noted observations and documents by the researcher provided substantial information to answer the research question in this study and help the researcher to better understand how organizational culture, particularly a market type, within the e-business organization under study influences continuous knowledge management initiatives.

**Interpretation of Entire Analysis**

The last phase of the sequential explanatory design, as indicated in Figure 2, consisted of the interpretation of the entire analysis. The final phase provided the researcher with an overview of the research study, which included analysis of quantitative and qualitative data to provide an answer or emerging theory to the research question: How does organizational culture influence continuous knowledge management initiatives in an e-business organization? The interpretation of the data analysis generated by the researcher from the e-business organization in the transportation industry under study revealed that a market type organizational culture does influence continuous knowledge management initiatives in an e-business organization. The researchers analysis of quantitative data also indicated that a clan and adhocracy organizational culture types may influence knowledge management initiatives in an e-business organization and that a hierarchy organizational culture type may not influence knowledge management initiatives
in an e-business organization. The researcher’s analysis of quantitative data also indicated that the dominant area of continuous knowledge management initiatives among sales professionals consists of knowledge management initiatives that are disseminated to them. The analysis of quantitative data revealed two dominant areas (market type organizational culture and the dissemination of knowledge management initiatives), which allowed the researcher to further develop emerging theories through collection and analysis of qualitative data through follow-up interviews with participants. The final phase of the sequential explanatory design completed the research, which included an interpretation of the entire analysis. The collection and analysis from quantitative and qualitative data, mixed methodology, and grounded theory approach for this case study provided the researcher with the best answer to the research question and provided the researcher with a better understanding of the relationship between the organizational culture types, particularly a market type, and continuous knowledge management initiatives, particularly the dissemination of knowledge management, in an e-business organization.

Chapter Summary

The triangulation strategy of quantitative and qualitative data collected and analyzed, and as presented in this chapter, ensured validity and reliability of this case study. The data results from this chapter comprised of a mixed methodology, and used a grounded theory approach to determine emerging themes, and sequential explanatory design to provide the best answer to the research question: “How does organizational culture influence continuous knowledge management initiatives in an e-business organization?” Finally, this chapter provided quantitative and qualitative data results to better understand the relationship between the organizational culture types, specifically market, and continuous knowledge management
initiatives, particularly the dissemination of knowledge management, used in the e-business organization under study.

The final chapter, Results, Conclusions, and Recommendations, will summarize and discuss the results, draw conclusions, and make recommendations for future research. The findings will be discussed in terms of the research problem, theoretical framework, and research question, the relevant conclusions will be drawn from data analysis, and the recommendations for future research will be identified.
CHAPTER 5. RESULTS, CONCLUSIONS, AND RECOMMENDATIONS

Introduction

The purpose of this research case study reflected a relationship between a market type organizational culture and continuous knowledge management initiatives among 31 sales professionals within an e-business organization, a large company, in the transportation industry. The two-part sequential phase and grounded theory approach used in this case study determined sales professionals perceptions about the correlation between technologies, people, and knowledge. The validity of this study included triangulation through the collection and analysis of quantitative data from a questionnaire followed by the collection and analysis of qualitative data from interviews, observations, and documents. A comprehensive theoretical explanation of social phenomena was determined from this research study. The grounded theory approach used by the researcher in this case study attempted to derive a theory of processes, and interactions grounded in the views of sales professionals. A theory emerged to answer the research question, “How does organizational culture influence continuous knowledge management initiative in an e-business organization?”

Summary of Results

The dominant organizational culture type, market, derived in this study confirmed that sales professionals work and thrive in a market type organizational culture. This study also revealed that the organization culture within this e-business organization in the transportation industry is managed and driven by executive management. According to Cameron and Quinn, organization culture needs to be managed. In addition, Cameron and Quinn (1999) indicated that in order to increase market culture, organizations need to consider slightly fewer measurements, maintain
commitment to win, stop the drive toward the numbers at all costs, focus on key goals, motivate others, adapt to market as well as human needs, and consider the need to still make money. Organizations should not ignore the competition, lose spirit and will to win, miss goals, neglect customers, miss profit, or neglect to look at results. The market type organization culture within this e-business organization in the transportation industry among sales professionals is evident and is strategically planned and strategically relayed by executive management to sales professionals.

The summary of results of this study of sales professionals within an e-business organization in the transportation industry indicates that a market type organizational culture positively influences continuous knowledge management initiatives. The results from this study are supported by additional research, which includes Cameron and Quinn’s research on organizational culture and Lawson’s research on the relationship between organizational culture and knowledge management initiatives.

Conclusions

The main purpose of this research study was to assess the relationship between organizational culture and continuous knowledge management initiatives, and the correlation between technologies, people, and knowledge in an e-business organization. If an e-business organization better understands these relationships they could potentially enhance value and ultimately provide more success to their company. It was also important to understand that e-business integrates the Internet and Intranet to provide knowledge to sales professionals to enhance value and competitive advantage to become more successful in their profession and industry. The research and findings from this case study were very evident, that e-business organizations and
e-leaders should consider continual assessment of knowledge management initiatives and best practices for continued growth and success within a company (Davenport & Prusak, 1998).

*Cameroon and Quinn’s OCAI–Theoretical Framework*

The quantitative analysis findings from the OCAI validated Cameron and Quinn’s study and profile (see Figure 6) on dominant organizational culture types in the transportation industry. In comparison the results from this study confirmed similar results and profile (see Figure 8). The survey results revealed from this case study, like Cameron and Quinn’s study, also concluded that the most dominant type of organizational culture used in the e-business organization under study in the transportation industry is market. The survey statistical data of this study also confirmed that hierarchy was the second most dominant culture type. The survey data in this study; however, indicated that clan and adhocracy tied for the next dominant organizational culture type versus Cameron and Quinn’s profile on transportation industries which revealed clan and adhocracy, respectively, to be more dominant. This case study also indicated a greater gap between market and hierarchy versus Cameron and Quinn’s study.
Figure 8. Culture plot of e-business organization in transportation industry case study, \( n = 26 \) (clan, adhocracy, and hierarchy), \( n = 25 \) (market)

Theory of Organizational Knowledge Creation

The findings from this case study also concluded that the e-business organization under study may need a better understanding of organizational knowledge creation. According to Choo and Bontis (2002), the essential elements of theory of organizational creations, and the basic concepts and models of the organizational knowledge creation are critical to understand in order to support knowledge management initiatives within an organization. The prime movers in the process of organizational knowledge creation are the people of the organization, which also appears to be evident in the e-business organization. In addition, as Choo and Bontis (2002) mention, a great deal has been written about the importance of knowledge management and the e-business under study understands this importance. According to sales professionals within the e-business organization under study, the theory section, as discussed by Choo and Bontis (2002)
in Chapter 2, indicated the most important part to understand in knowledge creation was that little consideration has been acknowledged on how knowledge is created and how the knowledge creation process is managed. The conclusion generated from this theory was derived from data analysis and emerging themes from sales professionals, which indicated that knowledge management initiatives are disseminated to sales professionals, that participants are inundated with knowledge management initiatives, and that sales professional would like more input on knowledge creation and how them knowledge management creation process is managed.

Lawson’s Study

The purpose of this case study, like Lawson’s, was to assess the relationship between organizational culture and knowledge management initiatives. The findings of Lawson’s study, like this case study, concluded that all types of organizational culture, except the hierarchy type (see Table 8), which reported a significance of .143 and correlation coefficient of .225, support knowledge management initiatives. Lawson’s study also concluded that there was a relationship between organizational culture and knowledge management initiatives (Lawson, 2004). The conclusion of this case study, like Lawson’s, also concluded that there was a relationship between organizational culture and knowledge management initiatives.

Recommendations

Based on the grounded theory approach, the dominant type (market) of organizational culture among sales professionals of this e-business organization in the transportation industry does influence continuous knowledge management initiatives. According to sales professionals continuous knowledge management initiatives do bring value and enhance organizational effectiveness in a market type organizational culture. In order to provide value, one
recommendation for executive management to consider is to review and understand organizational culture types. According to Cameron and Quinn (1999), the main idea for a manager to understand, identify, and potentially facilitate a change within an organization’s culture is to enhance its effectiveness. Research reflects that modifying organizational culture, “is key to the successful implementation of major improvement strategies (e.g., TQM, downsizing, reengineering) as well as adaptation to the increasing turbulent environment faced by modern organizations” (Cameron & Quinn, 1999, p.10). If an e-business organization wants to implement knowledge management initiatives and be successful, the company may have to change its organizational culture type first; therefore it would be helpful for executive management to understand organizational culture types.

Recommendations for Further Research

The researcher reported quantitative data analysis in this case study even though the sample size was small (26 participants), and results were highly unlikely to be valid. The researcher also used SPSS to collect data and run quantitative analysis. This data included analysis that used Kendall’s tau, which determined if there were any significant correlations among demographic data and other quantitative data (see Appendix F). The researcher revealed that there was a significant correlation between the age of sales professionals and the organizational type clan and that significant correlation was forthcoming between the age of sales professionals and the organizational type adhocracy. The researcher therefore recommends further research of these quantitative analysis findings to determine why the older a sales professional in the transportation industry gets the less likely they are willing to work in a clan organizational culture type, and potentially an adhocracy organizational culture type.
The researcher also reported the correlations (non-parametric) between the four types of organizational culture (clan, adhocracy, market, and hierarchy) and six dimensions of knowledge management initiatives (creating, capturing, organization, storage, dissemination, and application) used in this study even though it may be highly unlikely the data would not be valid due to the small sample size. The researcher also ran correlation tests that used Kendall’s tau between organizational culture and knowledge management initiatives (see Table 8). The results of these correlation tests were similar to those in Lawson’s study, which reflected the hierarchy organizational culture type not to have significant correlation to knowledge management. The other three organizational culture types (clan, adhocracy, and market) did reflect a correlation. The researcher therefore recommends further research to determine why a hierarchy organizational culture type would not have significant correlation to knowledge management and why clan, adhocracy, and market organizational culture types would have a correlation to knowledge management.

*Implications of Research Study*

The implications and results from this research study may benefit e-business organizations in the transportation industry, or potentially any industry, that may or may not have a market type organizational culture that is interested in knowledge management initiatives. This research case study presented how a market type organizational culture can influence knowledge management initiatives in an e-business organization in the transportation industry. In addition, this study provided data on how knowledge management may be effective strategic initiatives that enable long-term success, enhance value, and help to increase an organizations competitive advantage.
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Organizational Culture Types and KM Initiatives


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Organizational Culture Types and KM Initiatives


January 18, 2005

Lisa Kangas

Dear Lisa:

I am in receipt of your request to do a research case study at FedEx Services among sales professionals within our sales district in Minneapolis as you fulfill requirements for your PhD degree in the School of Business at Capella University. I approve your request to do a case study on the relationship between organizational culture type and continuous knowledge management objectives.

I look forward to working with you on a successful case study and wish you the best in completing your requirements to obtain your doctorate. If you have any questions please let me know.

Sincerely,

Todd Hillstead

District Sales Manager
11 January 2005

Lisa Kangas

Dear Ms Kangas

As per your request, this letter authorizes you to use my research instrument in the preparation of your dissertation. I am however, asking that I will be provided with a copy of the analysis.

I wish you all the best in your dissertation proposal and in all your future studies.

Yours sincerely

Sheron Lawson (Dr)
Chief Executive Officer

Insurance Association of the Caribbean, Inc.
Collymore Rock
St Michael
Tel: 246 427 5608
Fax: 246 427 7277
Email: sheron@iac-caribbean.com
Today, e-business organizations are facing new challenges, ones that can affect profitability. To be successful and competitive within this e-business evolution, organizations need to consider adaptive and intelligent strategies, like knowledge management practices. You are being asked to participate in this research case study that examines how organizational culture influences continuous knowledge management initiatives among sales professionals in e-business organizations, because you are a sales professional in the sales district under study. Your participation and findings of this case study may potentially increase value to sales professionals within your sales district, and ultimately other sales professionals and employees within your organization or other e-business organizations within the transportation industry.

This research case study is being conducted as part of a doctoral dissertation by Lisa M. Kangas, a doctoral candidate, in the School of Business at Capella University. You were selected to participate in this research, which includes a questionnaire and an additional interview upon collection and analysis of data from this questionnaire, since you are a sales professional working in the District in the e-business organization under study.

PURPOSE OF THE STUDY
The purpose of this research case study is to understand the relationship between organizational culture types and continuous knowledge management initiatives among sales professionals within the sales district and e-business organization you work in.

PROCEDURES
Your initial participation in this case study will include completion of a questionnaire that will take approximately 15 minutes. Upon analysis of questionnaire results you may be requested to participate in a brief follow-up telephone interview or a face-to-face interview that will take about 15 minutes.

POTENTIAL RISKS
As a participant no specific risks are involved in taking this study. All research materials will be stored in database to ensure anonymity and stored in a secure file cabinet for a minimum of seven years.

CONFIDENTIALITY
All information that is obtained in connection with this research study and that can identify you will be confidential. Information pertaining to you will be disclosed only with your permission or as required by law.

PAYMENT FOR PARTICIPATION
Your participation is totally on a voluntary basis and no reward or payment of incentive to participate will be given to participants.

POTENTIAL BENEFITS TO PARTICIPANTS AND/OR E-BUSINESS ORGANIZATIONS
This study will potentially contribute to existing knowledge and research regarding types of organizational culture and knowledge management practices among sales professionals within your sales district, potentially other individuals within your company, and ultimately other e-business organizations pursuing knowledge management practices in the transportation industry.

PARTICIPATION AND WITHDRAWAL
You can decide whether or not you want to be a participant in this case research study. If you volunteer to be in this research case study, you may select to withdraw at any time without any sort to consequences. Your participation/non-participation will not affect your employment status, personal consideration, or any other employment expectation rights. You may refuse to answer any questions you do not want to answer and still remain and complete the study. The researcher may withdraw you from the research if circumstances arise in the opinion of the researcher and management of the company require in doing so.

IDENTIFICATION OF RESEARCHER
If you have any questions or concerns about this research study, please contact Lisa M. Kangas, at 612-387-8077, 7681 Primrose Place, Chanhassen, MN  55317 or Todd Hillstead, District Sales Manager, at 952-832-8919.

RIGHT OF RESEARCH PARTICIPANTS
You are not obligated to participate in this questionnaire and may withdraw your consent to participate within this research study at any time. You are not waiving legal claim(s), rights, or remedies because of your participation in this case study. If you have any questions regarding your rights as a research participant, contact the Institution Review Board at Capella University, 225 South 6th Street, 9th Floor, Minneapolis, MN 55402; telephone: 612-944-5100.

SIGNATURE OF RESEARCH PARTICIPANT
Your acknowledgement and signature certifies that you have decided to participate in this research case study and that you read and understand material as presented.

Thank you very much for your valuable time and your participation. Please sign both forms and keep a copy for your records.

________________________________________________________________     ___________
Signature of Participant                                                                                                Date

________________________________________________________________     ___________
Printed Name of Participant                                                                                         Date
Dear Sales Professionals,

Thank you for taking time to provide assistance in this research study, An Assessment Between Organizational Culture and Continuous Knowledge Management Initiatives, which I am conducting as a doctoral candidate at Capella University. This study examines the relationship of organizational culture and knowledge management practices among sales professionals within your organization. Understanding this relationship can ultimately increase the value to your sales district, and ultimately your sales force and organization. In addition, it can provide valuable information to other e-business organizations considering knowledge management practices within their company.

You were selected to participate in this case study because you are a sales professional in the Minneapolis sales district. Please take approximately 15 minutes to complete this questionnaire. This survey was developed with the support of sales management. Participants will have the opportunity to contribute additional research, as well as receive results from the questionnaire through a follow-up telephone or a face-to-face interview. Upon questionnaire analysis completion you will be contacted.

Participation is voluntary; however highly encouraged. You may select to withdraw at any time without any sort to consequences. All personal information and responses collected will remain confidential and data results will be reported as anonymous. No reward or payment of incentive to participate in this research study will be given to participants. As a participant no specific risks are involved in taking this study.

Thank you for your valuable time and your assistance in this research study. If you have any questions, please contact me at [redacted] or Todd Hillstead at 952-832-8919. If you have any questions regarding your rights as a research participant, contact the Institution Review Board at Capella University, 225 South 6th Street, 9th Floor, Minneapolis, MN 55402; telephone: 612-944-5100.

Thank-you!

Warmest Regards,
Lisa Kangas
Organizational Culture and Knowledge Management Assessment Survey

Instructions: Please read each question and then select the response that most closely reflects your answer. This survey takes approximately 15 minutes to complete.

Section 1: Demographic Profile

1. Gender
   A. Male
   B. Female

2. Age
   A. 20-29 Years Old
   B. 30-39 Years Old
   C. 40-49 Years Old
   D. 50+ Years Old

3. Education Level
   A. No College Degree
   B. Some College
   C. College Degree
   D. Advanced College Degree

4. Job Title-Sales
   A. Sales Manager
   B. Sr. Account Executive
   C. Account Executive
   D. Administration
   E. Other

5. Length of Time with Company
   A. 0-5 Years
   B. 6-10 Years
   C. 11-20 Years
   D. 21+ Years

6. Length of Time in the Transportation Industry
   A. 0-5 Years
   B. 6-10 Years
   C. 11-20 Years
   D. 21+ Years

7. How much knowledge management training have you had within this Company?
   A. None
   B. 1- 10 Hours
   C. 11-25 Hours
   D. 26-50 Hours
   E. 51+ Hours

8. My organization has continuous knowledge management initiatives in place?
   A. Yes
   B. No
9. My organization has knowledge management training in place for continuous knowledge management initiatives?
   A. Yes
   B. No

Section 2: Organizational Culture Assessment Instrument (OCAI)

Please rate your level of AGREEMENT with each of the following items:
1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree

10. Dominant Characteristics
   1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree
   
   A. My organization is a very personal place. It is like an extended family. People seem to share a lot of
   themselves.
   
   B. My organization is a very dynamic and entrepreneurial place. People are willing to stick their necks out
   and take risks.
   
   C. My organization is very results oriented. A major concern is with getting the job done. People are very
   competitive and achievement oriented.
   
   D. My organization is a very controlled and structured place. Formal procedures generally govern what people
   do.

11. Organizational Leadership
   1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree
   
   A. The leadership in my organization is generally considered to exemplify mentoring, facilitating or nurturing.
   
   B. The leadership in my organization is generally considered to exemplify entrepreneurship, innovating, or
   risk taking.
   
   C. The leadership in my organization is generally considered to exemplify a no-nonsense, aggressive results-
   oriented focus.
   
   D. The leadership in my organization is generally considered to exemplify coordinating, organization or
   smooth-running efficiency.

12. Management of Employees
   1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree
A. The management style in my organization is characterized by teamwork, consensus, and participation.

1  2  3  4  5

B. The management style in my organization is characterized by individual risk-taking, innovation, freedom, and uniqueness.

1  2  3  4  5

C. The management style in my organization is characterized by hard-driving competitiveness high demands, and achievement.

1  2  3  4  5

D. The management style in my organization is characterized by security of employment, conformity, predictability, and stability in relationships.

1  2  3  4  5

13. Organization Glue
1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree

A. The glue that holds my organization together is loyalty and mutual trust. Commitment to this organization runs high.

1  2  3  4  5

B. The glue that holds my organization together is commitment to innovation and development. There is an emphasis on being on the cutting edge.

1  2  3  4  5

C. The glue that holds my organization together is the emphasis on achievement and goal accomplishment. Aggressive and winning are common themes.

1  2  3  4  5

D. The glue that holds my organization together is formal rules and policies. Maintaining a smooth-running organization is important.

1  2  3  4  5

14. Strategic Emphases
1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree

A. My organization emphasizes human development. High trust, openness, and participation persist.

1  2  3  4  5

B. My organization emphasizes acquiring new resources and creating new challenges. Trying new things and prospecting for opportunities are valued.

1  2  3  4  5

C. My organization emphasizes competitive actions and achievement. Hitting stretch targets and winning in the marketplace are dominant.

1  2  3  4  5

D. My organization emphasizes permanence and stability. Efficiency, control and smooth operations are important.

1  2  3  4  5
15. Criteria of Success
1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree

A. My organization defines success on the basis of the development of human resources, teamwork, employee commitment, and concern for people.

    1  2  3  4  5

B. My organization defines success on the basis of having the most unique or newest products. It is a product leader and innovator.

    1  2  3  4  5

C. My organization defines success on the basis of winning in the marketplace and outpacing the competition. Competitive market leadership is key.

    1  2  3  4  5

D. My organization defines success on the basis of efficiency. Dependable delivery, smooth scheduling, and low-cost production are critical.

    1  2  3  4  5

Section 3: The Knowledge Management Assessment Instrument

Please rate your level of AGREEMENT with each of the following items:
1=Strongly Agree, 2=Agree, 3=Neither Agree nor Disagree, 4=Disagree, 5=Strongly Disagree

16. Creating Knowledge
1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree

A. My organization has mechanisms for creating and acquiring knowledge from different sources such as employees, customers, business partners and competitors.

    1  2  3  4  5

B. My organization encourages and has processes for the exchange of ideas and knowledge between individuals and groups.

    1  2  3  4  5

C. My organization rewards employees for new ideas and knowledge.

    1  2  3  4  5

D. My organization has mechanisms for creating new knowledge from existing knowledge and uses lessons learned and best practices from projects to improve successive projects.

    1  2  3  4  5

17. Capturing Knowledge
1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree

A. My organization responds to employee’s ideas and documents them for further development.

    1  2  3  4  5

B. My organization has mechanisms in place to absorb and transfer knowledge from employees, customers, and business partners into the organization.

    1  2  3  4  5
C. My organization has mechanisms for converting knowledge into action plans and design of new products and services.

    1 2 3 4 5

E. My organization has policies in place to allow employees to present new ideas and knowledge without fear and ridicule. The organization showcases new ideas from employees to other staff.

    1 2 3 4 5

18. Organizing Knowledge
1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree

A. My organization has a policy to review knowledge on a regular basis. Persons are specially tasked to keep knowledge current and up to date.

    1 2 3 4 5

B. My organization has mechanisms for filtering, cross listing and integrating different sources and types of knowledge.

    1 2 3 4 5

C. My organization gives feedback to employees on their ideas and knowledge.

    1 2 3 4 5

D. My organization has processes for applying knowledge learned from experiences and matches sources of knowledge to problems and challenges.

    1 2 3 4 5

19. Storing Knowledge
1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree

A. My organization utilizes databases, repositories, and information technology applications to store knowledge for easy access by all employees.

    1 2 3 4 5

B. My organization utilizes various written devices such as newsletters, and manuals to store knowledge they captured from employees.

    1 2 3 4 5

C. My organization has different publications to display the captured knowledge.

    1 2 3 4 5

D. My organization has mechanisms to patent and copyright new knowledge.

    1 2 3 4 5

20. Disseminating Knowledge
1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree

A. My organization has knowledge (e.g. through Intranets, Internet, etc) in the form that is readily accessible to employees who need it.

    1 2 3 4 5
B. My organization sends out timely reports with appropriate information to employees, customers, and other relevant organizations.

1 2 3 4 5

C. My organization has libraries, resource centers, and other forums to display and disseminate knowledge.

1 2 3 4 5

D. My organization has regular symposiums, lectures, conferences, and training sessions to share knowledge.

1 2 3 4 5

21. Applying Knowledge
1=strongly agree, 2=agree, 3=neither agree nor disagree, 4=disagree, 5=strongly disagree

A. My organization has different methods for employees to further develop their knowledge and apply them to new situations.

1 2 3 4 5

B. My organization has mechanisms to protect knowledge from inappropriate or illegal use inside and outside of the organization.

1 2 3 4 5

C. My organization applies knowledge to critical competitive needs and quickly links sources of knowledge in problem solving.

1 2 3 4 5

D. My organization has methods to analyze and critically evaluate knowledge to generate new patterns and knowledge for future use.

1 2 3 4 5
APPENDIX E

INTERVIEW RESEARCH QUESTIONS

The survey data indicated the dominant organizational culture type that you work in is a market, which means you work in a results-oriented organization where the major concern is getting the job done. People are competitive and goal-oriented. The leaders are hard drivers, producers, and competitors who are tough and demanding. The glue that holds the organization together is an emphasis on winning. Reputation and success are common concerns. The long-term focus is on competitive actions and achievement of measurable goals and targets. Success is defined in terms of market share and penetration. Competitive pricing and market leadership are important. Finally, the organizational style is hard-driving competitiveness (Cameron & Quinn, 1999).

The survey data also indicated that the dominant dimension of knowledge management consists of disseminating knowledge, which includes knowledge (e.g. Internets and Intranets) that is easily available and accessible to people who need it, that your organization sends out timely reports with appropriate information to employees, customers, and other relevant organizations, that your organization has libraries, resource centers, and other forums to display and disseminate knowledge, and your organization that it has regular symposiums, lectures, conferences, and training sessions to share knowledge.

1. Do you think this survey data exemplifies the type (market) of organizational culture you work in? Do you think this type of organizational culture is effective and important for the profession (sales) and industry (transportation) you work in? Why or why not?

2. The survey data indicated that the dominant dimension of knowledge management consists of disseminating knowledge (e.g. Internets and Intranets) that is easily available and accessible to people, that your organization sends out timely and appropriate reports, that your organization has resource centers and libraries to display knowledge, and your organization has regular conferences, training session, etc. to share knowledge. Do you think this dimension (disseminating knowledge) of knowledge management is important to be successful in your organization? Do you think the technology and/or people aspects of this dimension are more important?

3. What knowledge management initiatives do you think are most important in the e-business organization you work in, in order to be successful?

4. Do you think knowledge management initiatives are effective and important in the type (market driven) of organizational culture we just discussed? Why or why not?

5. Do you think the knowledge management initiatives just discussed are effective strategies that enable long-term success, enhance value, and help to increase competitive advantage within your e-business organization? Why or why not?
## APPENDIX F

**NONPARAMETRIC CORRELATIONS/KENDALL’S TAU**

Table F1

<table>
<thead>
<tr>
<th></th>
<th>Gender</th>
<th>Age</th>
<th>Educ Level</th>
<th>Job Title</th>
<th>Length of Time w/Co</th>
<th>Length of Time w/Trans Industry</th>
<th>Hours of KM Training w/Co</th>
<th>KM Inttvs within Org</th>
<th>Train in Place for KM Inttvs</th>
<th>Clan Score</th>
<th>Adhoc Score</th>
<th>Mrkt Score</th>
<th>Hier Score</th>
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**Correlation Coefficient**

- **0.01** indicates a weak positive correlation.
- **0.30** indicates a moderate positive correlation.
- **0.70** indicates a strong positive correlation.

**Sig. (2-tailed)**

- **0.05** indicates statistical significance at the 5% level.
- **0.01** indicates statistical significance at the 1% level.

**N**

- Represents the sample size.
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**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).
Institutional Review Board Application

(When this IRB application is completed, it is to be submitted with the research proposal for the next stage of review. The Provost, or designee, gives final approval. See the checklists at the end of this form to verify that you have completed all of the information for this application.)

Name: Lisa M. Kangas-Learner
Date: 1/25/05
Address: 7681 Primrose Place Chanhassen, MN 55317
Phone (Work): 952-832-8921 (Home): 612-387-8077
Email Address(es): ..................................
Field of Study: Organization and Management
Degree Program: PhD

Supervisor Name: Dr. Clifford Butler
Supervisor Title: Mentor
Address _______________________________________________________________________
Phone (Work) ____________________ (Home) _________________________
Email Address(es) _____________________________________________
_________________________________________________________________________
Provost _________________________________________________________
12/3/04 Fill in date you successfully completed the online IRB Training required modules and optional modules appropriate to research topic

1. Project Title: (Use same title as Final Proposal)

AN ASSESSMENT OF THE RELATIONSHIP BETWEEN ORGANIZATIONAL CULTURE AND CONTINUOUS KNOWLEDGE MANAGEMENT INITIATIVES

2. Inclusive dates of project: April 2005 through June 2005
3. Abstract
This research case study of sales professionals within an e-business organization in the transportation industry is conducted using a grounded theory approach, mixed methods design, and sequential explanatory strategy. This research study addresses the following research question: “How does organizational culture influence continuous knowledge management initiatives in an e-business organization?” The two part sequential phase of this grounded theory case study, to determine the relationship between organizational culture and continuous knowledge management initiatives in an e-business company, includes triangulation through the collection and analysis of quantitative data from a questionnaire followed by the collection and analysis of qualitative data from interviews, observation, and documents. The quantitative design entails three survey instrument components: a Demographic Respondent Profile, an Organizational Culture Assessment Instrument (OCAI), and a Knowledge Management Assessment Instrument (KMAI). The Competing Values Framework (Quinn & Rohrbaugh, 1983) is discussed to understand how e-business organizations may improve value creation. Conducting this case study may help in determining if knowledge management initiatives will be beneficial and advantageous to e-business organizations as they assess their culture type(s) and consider implementing knowledge management initiatives. In the right organizational culture, knowledge management may be an effective strategic initiative that enables long-term success, enhances value, and helps to increase an organization's competitive advantage.

4. Participant/Subject Population (or Final Sample to be selected)

a. Number: Male 21  Female 10  Total 31
b. Age Range: 25 to 60
c. Location of Participants:
   (Check all that apply)

   X  business
   ___elementary / secondary school
   ___outpatient
   ___hospital / clinic
   ___university / college
   ___other special institution / agency: specify ____________________________
d. Special Characteristics:
(Check all that apply)

___adults with no special characteristics

___Capella University learner, faculty, and/or staff

___inpatients

___outpatients

___prisoners

___students

___other special characteristics:

specify ___Sales Professionals

If research is conducted through organizations or agencies, written documentation of approval / cooperation from each agency (e.g., business, school, hospital, clinic) must accompany this application.

e. Recruitment of Participants/Subjects
Participants are sales professionals in the sales district under study–see attached for approval of business.

f. Approval for Use of Records
N/A

g. Initial Contact with Participants/Subjects
Sales manager

h. Inducements or Rewards to Participants/Subjects
Will participants/subjects receive inducements before, or rewards after the study?
No
Include this information in your assent/consent documents. See checklist at the end of this form to verify that you have completed the informed assent/consent documents or the cover to an anonymous questionnaire.

i. Activity for Control Group
If some of the participants/subjects are in a control group, describe in detail the activity planned for that group. (This information must be included in the consent/assent forms.)

N/A.

5. Confidentiality of Data

a. Describe what provisions will be made to establish and maintain confidentiality of data and who will have access to data. If anonymous surveys are distributed, provide all the information that would have been given in an informed consent form as a cover to the survey
(see the checklist at the end of this form to verify that you have completed the cover to the survey).

*Researcher will be the only one that has access to data. Surveys will be distributed with mention to confidentiality and anonymous. See attached.*

b. Where will the data be stored and for how long? Whatever media (e.g., audiotape, paper, digital recording, videotape) are used to record the data, explain who will have access and how long the media will be retained. It is required that data be stored for a minimum of seven years after publication of results (such as a dissertation). If data will be destroyed, describe the secure method for destroying the materials that will maintain confidentiality.

*Data will be stored in the researchers locked cabinet and database for seven years.*

All documents relating to ethical treatment of human participants/subjects which will be used in the course of the research must be attached to this form. These documents include consent forms, cover letters and other relevant material.

Attached.

See checklist at the end of this document to verify that the application form has been completed.

Submit completed checked checklists with this application form to your schools designated IRB reviewer.
Signature of Researcher

As a Researcher (e.g., Learner, Faculty Employee, Consultant, Directed Employee/Agent, Independent Contractor, Adjunct Faculty) you certify that:

- The information provided in this application form is correct and complete.
- You will seek and obtain prior written approval from the Committee for any substantive modification in the proposal.
- You will report promptly to your Supervisor any unexpected or otherwise significant adverse events in the course of this study.
- You will report to the Supervisor and to the participants/subjects, in writing, any significant new findings which develop during the course of this study which may affect the risks and benefits to participation in this study.
- You will not begin the research until final written approval is granted.
- You understand that this research, once approved, is subject to continuing review and approval by your Supervisor. You will maintain records of this research according to Supervisor guidelines. Substantive change requires submitting an addendum to a previously approved application. An addendum is a totally new application form with attachments. The cover letter with the addendum describes the changes that were made from the originally approved application.

If these conditions are not met, approval of this research could be suspended.

Signature of the Researcher:

Lisa Kangas                                        Date 2/2/05
Signature of Supervisor

As a Supervisor (e.g., Mentor, Instructor, Practicum Supervisor, Internship Supervisor, Staff Supervisor) you certify that:

- The information provided in this application form is correct and complete.
- You will review and provide prior written approval to your Supervisee for any substantive modification in the proposal. You will inform the committee members appointed to oversee the research and its results.
- You will receive reports from your Supervisee about any unexpected or otherwise significant adverse events in the course of this study. You will inform the committee members appointed to oversee the research and its results.
- You will review research records maintained by your Supervisee until the final written document is produced and approved by you and the oversight committee.
- You will inform the oversight committee about the progress of your Supervisee from the time of developing research questions, through the proposal, IRB application, collection of data, writing results, and completing the documentation of the research.
- You will contact the Lead Subject Matter Expert (e.g., Chair of the Specialization, Faculty Director) if additional review is needed.
- You will make sure that this application has been completed by your Supervisee including all accompanying attachments before signing your name for approval.
- You assume responsibility for ensuring that the research complies with University regulations regarding the use of human participants/subjects in research.

If these conditions are not met, approval of this research could be suspended.

Signature of the Supervisor:

Name __________________________________________ Date ____________

Title __________________________________________

Signature of Provost or Designee

As Provost, or designee, I acknowledge that this research is in keeping with the standards set by the university and assure that the researcher has met all requirements for review and approval of this research.

Signature of Provost or Designee

Name __________________________________________ Date ____________
Completed forms should be sent as email attachments. Scan signature pages and attach as files. Send email messages with attachments to the designated IRB reviewers in one of the following schools representing your specialization affiliation:

Harold Abel School of Psychology
School of Business
School of Education
School of Human Services
School of Technology
Checklist: Form Completed

Use this form to verify that an application has all the necessary information completed in the Institutional Review Board (IRB) Application

1. __X__ all items answered (use NA where item is Not Applicable)
   ___X___ demographics of learner and supervisor
   ___X___ #1. Project Title
   ___X___ #2. Dates of Project
   ___X___ #3. Abstract (see checklist)
   ___X___ #4. Population
      ___X___ #4.a. number
      ___X___ #4.b. age range
      ___X___ #4.c. location of participants/subjects
      ___X___ #4.d. special characteristics of participants/subjects
      ___X___ #4.e. recruitment of participants/subjects
      ___NA___ #4.f. approval for use of records
      ___X___ #4.g. initial contact with participants/subjects
      ___X___ #4.h. inducements or rewards to participants/subjects
      ___NA___ #4.i. activity for non-participants/non-subjects (e.g., control group)
   ___X___ #5. Confidentiality of data
      ___X___ #5.a. establish, maintain confidentiality, access to data
      ___X___ #5.b. storage/destruction of data
   ___X___ signatures
      ___X___ researcher
      ________supervisor

2. ___X___ application attachments (use NA where item is Not Applicable)
   ___NA___ approval from institution housing participants
   ___NA___ approval from institution housing records
   ___NA___ assent form for minor participants (see checklist)
   ___NA___ checklist for extracting information from files or records
   ___NA___ consent form for parent/guardian/adult participant (see checklist)
   ___NA___ cover letter for mailed consent form
   ___NA___ cover letter for mailed questionnaire
   ___X___ cover information for questionnaire (see checklist)
   ___X___ instrument(s) to elicit responses from participants
   ___X___ questions to be asked during interviews
   ___NA___ script/letter/email message to recruit participants
   ___NA___ other

3. ___X___ IRB Application complete
   action: forward to School designee to review for approval
   date of action ______________________________________
Checklist: Abstract

Use this form to verify that item #3 has been completed on the Institutional Review Board (IRB) Application

1. The application is for
   a. use of human participants in research (including record review)–answer items below and submit to Capella School IRB reviewer
   b. use of animal subjects in research (including record review)–contact Capella University IRB Committee before completing application NA
   c. other type of research (specify _____________________)–contact Capella University IRB Committee before completing application NA

2. Describe what the proposed research is about, and the research design to be used.
   The purpose of this research is to understand the relationship between organizational culture and continuous knowledge management initiatives in an e-business organization among sales professionals within the transportation industry. A mixed methods research design will be used.
   (state, in one or two sentences, the research question to be answered, and any hypotheses to be tested)
   This case study addresses the following research question: “How does organizational culture influence continuous knowledge management initiatives in an e-business organization.”
   (research design choices include: descriptive, case/field study, correlation, causal-comparative)

3. State the research topic; describe what research has previously been done related to this topic; and restate the research question in terms of the implications from the results that are expected to be found.
   Many concepts and trends have emerged from knowledge management initiatives (research topic) that have enhanced the value and competitive edge of e-business organizations. This information, as well as the history of knowledge management through previous research studies is provided in the “Literature Review” of this research study. It is also clear that further research is needed to continue to better understand the relationship of organizational culture types and knowledge management initiatives within e-business organizations. This case study expects to determine which type (clan, adhocracy, hierarchy, or market) of organizational culture influences continuous knowledge management initiatives in an e-business organization within the transportation industry.

4. Describe how the data will be collected through one or more of the following:
   a. using standardized tests with human participants, NA
   b. interviewing human participants, face-to-face and telephone
   c. asking human participants to complete questionnaires, survey will be distributed during a District team meeting,
   d. reviewing files containing information about human participants, or NA
   e. some other procedure _________________________________. NA
5. (Omit for record review)
Describe how the participants will be recruited, and the characteristics of the population that is represented. NA

6. (Omit for research using human participants)
Specify the characteristics of the records that will be selected. NA

7. Describe how the sample will be selected. 
(specify the type of sampling, such as convenience, periodic, random, snowball, or systematic), 
(explain how the process will be conducted), 
(specify the number of participants or records in the sample), and 
(specify the characteristics of the sample, such as sex, age, and other variables to be studied). 
This case study entails 31 sales professionals (21 male and 10 female) between the ages of 20 and 65 within the Minneapolis sales district.

8. (Omit for record review) NA
Describe how participants will be contacted for recruitment as a participant. 
(describe how participants will be identified), 
(describe how participants will be approached), and 
(describe how participants will be recruited). 
(NOTE: attach advertisement, bulleting board notices, recruitment letters, script for telephone call, script for announcement at gatherings, or other documentation supporting the descriptions and explain any inducements to be offered to participants)

9. (Omit for record review or mailed questionnaires)
Describe how informed consent will be provided. 
(specify the process of obtaining consent from adults, assent from minors, and/or consent from guardians of minors). 
Two copies of an informed consent form will be provided to participants at the time the survey is requested to be completed. Both copies will request signature, one copy will be returned to the researcher and the other copy will be kept by the participant. 
(NOTE: attach the form(s) that will be used to obtain consent and/or assent) 
(NOTE: attach the cover letter if mailing the request for the form(s) that will be used to obtain consent and/or assent)

10. (Omit for record review or when informed consent is required)
Describe how the participant will participate. 
(specify how participants will have the following information: what they are expected to do, how long their participation will take, who is conducting the research, the topic of the research, the
reason for conducting the research, why they were selected, how anonymity will be protected, how data are kept confidential, and how to contact those who will have answers to any questions about the research, i.e., the researcher, the faculty mentor, and Capella University). (NOTE: attach the cover letter that will accompany the questionnaire)

11. Describe how the data will be analyzed. (specify the type of quantitative analysis or qualitative analysis, and include a variable code sheet where appropriate).

Microsoft Excel and the statistical package software, SPSS will used to conduct statistical analyses, manipulate data, and generate tables and graphs that summarize data. This study may analyze qualitative data collected and run standard statistical measures; however the researcher may not report quantitative data that was analyzed because it may be highly unlikely that the data would be valid due to the small sample size. The researcher will analyze data through the creation of frequency tables for each of the questions within the KMAI and OCAI sections and report dominant areas for further exploration. The questionnaire results will provide emerging themes about the relationship between organizational culture and continuous knowledge management initiatives of sales professionals within an e-business organization in the transportation industry. The emerging themes will be analyzed and further collection and qualitative analysis will be provided through interviews, observations, and documents.