

EXAMINING THE RELATIONSHIP BETWEEN ORGANIZATIONAL CULTURE  
AND KNOWLEDGE MANAGEMENT

By  
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A Dissertation  
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By

Sheron Lawson


We hereby certify that this Proposal submitted by Sheron Lawson conforms to acceptable standards, and as such is fully adequate in scope and quality. It is therefore approved towards the fulfillment of the Dissertation requirements for the degree of Doctor of International Business Administration.

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## CERTIFICATION STATEMENT

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Sign *Sheron Lawson*  
Sheron Lawson

## ABSTRACT

### EXAMINING THE RELATIONSHIP BETWEEN ORGANIZATIONAL CULTURE AND KNOWLEDGE MANAGEMENT

By

Sheron Lawson

Knowledge management is now widely recognized as a competitive advantage and an increasing number of organizations are incorporating knowledge management as a core strategy to enhance their organizational competitive advantage. A high percentage of organizations that have implemented knowledge management as a corporate strategy have not achieved their objectives and are having a growing sense of disenchantment about its practicality. Research revealed that organizational culture is a major barrier to creating and leveraging knowledge assets. This research examined the relationship between organizational culture and knowledge management. The Competing Values Framework devised by Robert Quinn and John Rohrbaugh (1983), was used to analyze the differences in organizational culture profiles and how they might be related to the various dimensions of knowledge management. The implications of this study can be of significant value to organizations as they prepare to implement knowledge management initiatives. The findings could help organizations assess the likelihood that implementation of knowledge management initiatives will be successful or will increase the organization's competitive advantage in relationship to the current organizational culture.

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## CHAPTER I

### I. INTRODUCTION

#### Introduction

This research examined the relationship between organizational culture and knowledge management. The Competing Values Framework devised by Robert Quinn and John Rohrbaugh (1983) was used to analyze the differences in organizational culture profiles and how they might be related to the various dimensions of knowledge management. The implications of this study can be of significant value to organizations as they prepare to implement knowledge management initiatives. The findings could help organizations assess the likelihood that implementation of knowledge management initiatives will be successful or will increase the organization's competitive advantage in relationship to the current organizational culture.

Chapter I discusses the background of the problem. It gives historical perspectives on knowledge management, organizational culture and the Competing Values Framework. The last section of the chapter discusses the research questions and the significance of the study.

## Background of the Problem

Many organizations have embarked upon knowledge management as a core strategy to enhance their organizational competitive advantage (Brailford, 2001; Nidumolu, et al., 2001; DeLong & Fahey, 2000; Zack, 1999; Inkpen, 1996). Bell-DeTienne and Jackson (2001), cited studies done by Ernst & Young's Center for Business Innovation and Business Intelligence and the Delphi Consulting Group in Boston that 40% of companies surveyed have knowledge management systems running or in development, and 70% had planned to make their first investments in knowledge management in the next one to three years.

Knowledge management is now widely recognized as a competitive advantage, and an increasing number of organizations are incorporating the knowledge management strategy (Marshall et al, 1996; Inkpen, 1996; Buckley & Carter, 1999; Ambrecht et al., 2001; Bell DeTienne & Jackson, 2001). According to DeLong and Fahey (2000), a high percentage of organizations that implemented knowledge management as a corporate strategy have not achieved their objectives and have a growing sense of disenchantment about the practicality of knowledge management. They further stated that their research revealed that organizational culture is a major barrier to creating and leveraging knowledge assets. Brannen and Salk (2000) supported this claim by citing the many researchers who stated that there is a significant link between strong cultures and effective organizational outcomes.

In its early beginnings, much emphasis was placed on information technology as the crucial enabler for knowledge management but many researchers and practitioners are citing culture as the one enabler of knowledge management (Davenport, 1997; Moore, 1998; Gupta & Govindarahan, 2000). Davenport (1997) posited seven pitfalls of knowledge management and among these he stated that if an organization is spending more than one third of its time on technologies for knowledge management then it is neglecting the content, organizational culture, and motivational approaches that will make a knowledge management system actually useful. Gupta and Govindarahan (2000) stated that effective knowledge management depends not merely on information technology platforms but more broadly on the social ecology of an organization. Moore (1998), in a case analysis of Xerox Corp, stated that the project team recognized quite early that cultural issues would be more crucial to the project's success than information technology. She further stated that many experienced knowledge management practitioners cited an inappropriate corporate culture as the biggest impediment to knowledge transfer; and that fostering a knowledge-sharing culture is the most important critical success factor for knowledge management projects.

#### Background on Knowledge Management

Since the early 1990's knowledge management has been a critical factor for organizations looking to increase their productivity and effectiveness (DeLong & Fahey, 2000; Zack, 1999; Inkpen, 1996). According to Koulopoulos and

Frappaolo (2000), knowledge management is a critical business strategy, which enables an organization to leverage its most precious resources, collective know-how, talent and experiences to accelerate the rate at which it handles new market challenges and opportunities. Inkpen (1996) propounded that organizations' failure to create and manage knowledge as a critical asset may account for their declining performance.

In its early beginnings, knowledge management was placed mostly in the information technology domain, and the emphasis was on knowledge-based systems, tools and techniques (Grover & Davenport, 2001, Koulopoulo & Frappaolo, 2000). It was after many of these initiatives failed that researchers have started to look at the softer side of knowledge management (Koulopoulo & Frappaolo, 2000; Davenport, DeLong, & Beers, 1998). Many researchers now agree that knowledge management is more than just the storage and manipulation of information, but a process that requires the commitment to create and disseminate knowledge through the organization (Parikh, 2001; Marshall et al., 1996).

According to Kim and Mauborgne (1999), organization's knowledge has been a compelling force in the wealth creating-potential and the increasing market value of many organizations. They cited SAP and Microsoft's market value towering over their competitors despite their smaller physical size. They stated that in 1995 Microsoft with \$6 billion in revenue and \$7 billion in assets

has 1.5 times the market value of General Motors with \$168 billion in revenues and \$217 billion in assets. They further stated that the key variable in explaining the widening gap between a company's market value and its tangible asset value was the company's stock of knowledge. Kim and Mauborgne (1999) further stated that the systemic use of knowledge and ideas are infinite economic goods that can generate increasing returns.

### Knowledge

Knowledge is the foundation of knowledge management; therefore, for the effective management of knowledge, a general understanding of the characteristics of knowledge is a required pre-requisite.

Almost every discipline has its own definition for knowledge. There is no one definition that cuts across disciplines, professional levels and organizations (Beckman 1999, Von Krogh, et al., 2000). Beckman (1999) cited various definitions by several researchers and practitioners in the knowledge field. These definitions are outlined in Table I.I.

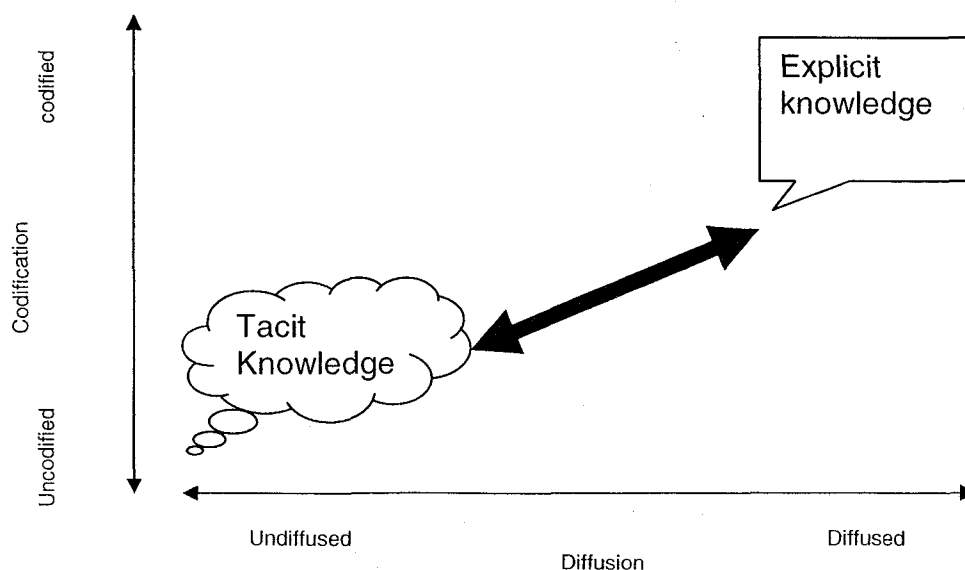


**Table I.I – Knowledge Management Definitions**

Theorist	Year	Definition
H. Woolf	1990	Knowledge is organized information applicable to problem solving.
E. Turban	1992	Knowledge is information that has been organized and analyzed to make it understandable and applicable to problem solving or decision-making.
J. Sowa	1984	Knowledge encompasses the implicit and explicit restriction placed upon objects (entities), operations, and relationships along with general and specific heuristics and inference procedures involved in the situation being modeled.
K. Wiig	1993	Knowledge consists of truths and beliefs, perspectives and concepts, judgments and expectations, methodologies and know-how.
T. Beckman	1999	Knowledge is reasoning about information and data to actively enable performance, problem solving, decision-making, learning, and teaching

Michael Polanyi is credited with making the distinction between two types of knowledge, explicit and tacit (see Figure I.I), and Nonaka and Takeuchi for further defining the characteristics of these two types of knowledge (Nonaka, 1994; Parikh, 2001; Koulopoulo & Frappaolo, 2000).

**Figure I.I – Tacit and Explicit Knowledge  
(Koulopoulo & Frappaolo, 2000)**



## Explicit Knowledge

Explicit knowledge is defined as structured and codified knowledge, which can be easily communicated and stored. It is formal and systematic and is easily expressed in product specifications, scientific formulas, or computer programs (Nonaka, 1994, 1996, 1998).

## Tacit Knowledge

Tacit knowledge is personal knowledge that is hard to formalize and, therefore, difficult to communicate to others. It is also deeply rooted in action and in individual's commitment to a specific context. It consists partly of technical skills, informal, hard-to-pin down skills captured in the term "know-how"; and has an important cognitive dimension. This consists of mental models, beliefs, and perspectives so ingrained that we take them for granted, and therefore cannot easily articulate them (Nonaka, 1998).

## Knowledge Creation Cycle

The distinction between tacit and explicit knowledge suggests four basic patterns (See Figure I.II) for creating knowledge in any organization (Nonaka, 1994):

1. Socialization - From Tacit to Tacit: The process of sharing of experiences. An individual or a group shares knowledge directly with others. Socialization occurs when this happens but it is a limited form of

knowledge creation because the knowledge never becomes explicit and cannot easily be leveraged by the organization as a whole.

2. Externalization - From Tacit to Explicit: The process of articulating tacit knowledge so that it is converted into explicit concepts. This is a powerful conversion process and lies at the heart of knowledge creation. This is the critical process that brings an organization competitive advantage.
3. Combination - From Explicit to Explicit: The process of systemizing concepts into a knowledge system. An individual or group combines discrete pieces of explicit knowledge into a new whole. Combination is not valuable if it does not extend the company's existing knowledge base.
4. Internalization - From Explicit to Tacit. The process of embodying explicit knowledge into tacit knowledge. When new explicit knowledge is shared throughout the organization, other employees begin to internalize it by using it to broaden, extend, and reframe their own tacit knowledge.

Figure I.II – Explicit and Tacit Knowledge (Nonaka, 1996)

	Tacit Knowledge	To	Explicit Knowledge
Tacit Knowledge	Socialization		Externalization
From Explicit Knowledge	Internalization		Combination

Nonaka (1994, 1998) said that in the knowledge-creating organization, all four of these patterns exist in dynamic interaction. He stated that for an organization to effectively create knowledge, all four modes must be managed to form a continual cycle. He further stated that a social context is needed for knowledge to move from individuals to the collective or group level and then to the organizational level.

#### Definition of Knowledge Management

There is no agreed upon definition for knowledge management and definitions usually depend upon the researchers, their experience, background and interest (Parikh, 2001; Koulopoulo & Frappaolo, 2000). Horwitch and Armacost (2002, p. 27), defined knowledge management as “The practice of creating, capturing, transferring, and accessing the right knowledge and

information when needed to make better decisions, take actions, and deliver results in support of the underlying business strategy.” According to Wiig (1993), knowledge management is fundamentally the management of corporate knowledge and intellectual assets that can improve a range of organizational performance characteristics and add value by enabling an enterprise to act intelligently.

For the purpose of this research, the definition given by Gupta, et al. (2000, p17) is used, “Knowledge management is a process that helps organizations find, select, organize, disseminate, and transfer important information and expertise necessary for activities such as problem solving, dynamic learning, strategic planning, and decision making”.

#### Knowledge Management Cycle

Knowledge management is a continuous process and becomes an expanding spiral as more and more knowledge is added and managed over time (Parikh, 2001). The knowledge management cycle is divided into sequential and overlapping phases of three to eight processes depending on the researcher. Table I.II outlined the theorists and the processes that they proposed.

**Table I.II – Knowledge Management Processes**

Theorist	Processes
Wiig (1993)	<ol style="list-style-type: none"> <li>1. Creation and sourcing</li> <li>2. Compilation and transformation</li> <li>3. Dissemination</li> <li>4. Application and value realization</li> </ol>
Parikh (2001)	<ol style="list-style-type: none"> <li>1. Knowledge Acquisition</li> <li>2. Knowledge Organization</li> <li>3. Knowledge Dissemination</li> <li>4. Knowledge Application</li> </ol>
Horwitch and Armacost (2002)	<ol style="list-style-type: none"> <li>1. Create knowledge</li> <li>2. Capture knowledge</li> <li>3. Organize knowledge</li> <li>4. Transfer knowledge</li> <li>5. Use knowledge</li> </ol>

For this research, the knowledge management cycle was divided in six different processes by combining and adapting the phases of Wiig (1993); Horwitch and Armacost (2002); and Parikh (2001):

1. Knowledge Creation - Organizations make conscious effort to search and define relevant knowledge and its sources from both within and outside. Knowledge is created through discovery, that is, employees developing new ways of doing things or it is brought in through external sources.
2. Knowledge Capture - New knowledge is identified as relevant and valuable to current and future needs. It is represented in a reasonable way where it is easily accessed, extracted and shared.
3. Knowledge Organization - New knowledge is refined and organized. This is done through filtering to identify and cross-list the useful dimensions of the knowledge for different products and services. The knowledge is placed in context so that it is actionable and it can be reviewed and kept current and relevant.
4. Knowledge Storage - Codified knowledge is stored in a reasonable format so that others in the organization can access it. Database management and data warehousing technologies can help in this process.
5. Knowledge Dissemination – Knowledge is personalized and distributed in a useful format to meet the specific needs of users. The knowledge is articulated in a common language and using tools that are understood by all users.
6. Knowledge Application – Knowledge is applied to new situations where users can learn and generate new knowledge. In the learning process there should be analysis and critical evaluation to generate new patterns and knowledge for future use.

According to the knowledge management literature (Inkpen, 1996; Wiig, 1993; Beckman, 1999; Parikh, 2001), an organization is said to be actively managing their knowledge assets when it effectively incorporates these processes into its organization strategic management system. To this effect these six processes made up the knowledge management cycle that this study examined and measured to attest the level of knowledge management in organizations.

#### Background on Organizational Culture

The concept of organizational culture gained recognition in the early 1980s when prominent business periodicals featured articles on Corporate Culture and Organization (Lewis, 1996; Sheridan, 1992). Peters and Waterman (1985) article, *In Search of Excellence*, was one of the driving forces behind the proliferation of this concept. Organizational culture is extremely broad and inclusive in scope. It comprises a complex, interrelated, comprehensive, and ambiguous set of factors (Quinn & Cameron, 1999).

According to Schein (1999), culture is the property of a group that is formed when the group develops enough common experience. He stated that culture is a very important phenomenon because it is an unconscious set of forces, determining both individual and collective behaviors, values, thought patterns, and ways of perceiving.



At the organizational level, Schein (1999) stated that organizational culture is very critical because cultural elements determine strategy, goals, and modes of operating. He postulated that for organizations to become more efficient and effective, the role that culture plays in organizational life must be fully understood because decisions made without awareness of the operative cultural forces may have anticipated and undesirable consequences.

Hatch and Schultz (1997) promulgated that organizational culture develops at all hierarchical levels, is founded on a broad-based history, and involves all organizational members. They perceived organizational culture as a symbolic context within which interpretation of organizational identity is formed and intentions to influence organizational image are formulated. The culture, they stated, should be considered in explanation of the development and maintenance of organizational identity.

#### Levels of Culture

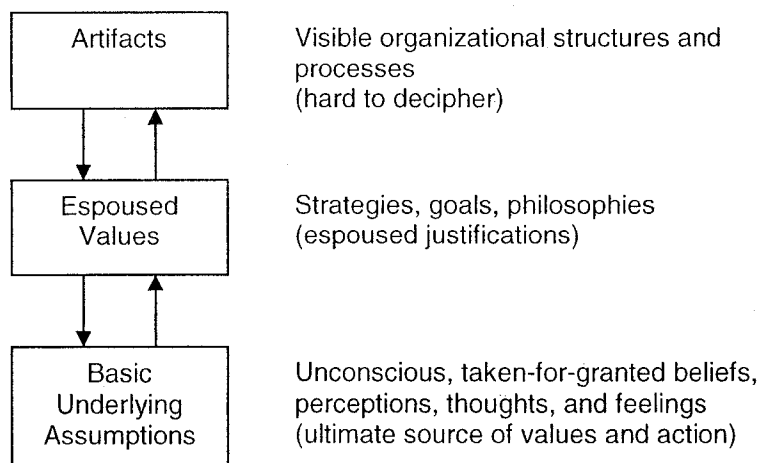
According to Schein (1999), culture exists at several levels in an organization, which go from very visible to very tacit and invisible. He outlined three levels for culture:

1. Artifacts – The first level is the most manifest level and the easiest to observe. Artifacts are what you can see, hear and feel in organization environment. It consists of the physical and social organization, which

includes, the architecture, technology, office layout, manner of dress and employees, visible or audible pattern, amongst others.

2. Espoused Values – The second level explains the behavior pattern in the first level. Constituents of this level provide the underlying meanings and interrelations by which the patterns of behaviors and artifacts may be deciphered.
3. Shared Tacit Assumptions – The third level is an unconscious level of culture at which the underlying values have, over a period of time, been transformed and are taken for granted as an organizationally acceptable way of perceiving the world. The underlying basic assumptions, which first started as espoused values are also the most difficult to relearn and change.

**Figure I.III- 4 Levels of Culture and their Interaction (Shein, 1999)**



## Definition of Organizational Culture

There is no one widely accepted definition for organizational culture but for the purpose of this research, the definition established by Schein (1984, p. 3), is used,

**“Organizational culture is the pattern of basic assumptions that a given group has invented, discovered, or developed in learning to cope with its problems of external adaptation and internal integration, and that have worked well enough to be considered valid, and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems”.**

## Research Questions

This study addresses the following two research questions, 1) “Does organizational culture have a positive effect on the implementation of knowledge management”? 2) “Is there a culture type that supports the successful implementation of knowledge management”? The search for the answers to these research questions utilized the Competing Values Framework to establish if there was a relationship between the organizational culture and knowledge management. The four culture types embedded in the framework were assessed to ascertain which of the culture types values were most likely to impact upon the successful implementation of knowledge management. Obtaining the answers to the following research questions is an essential first step for organizations to

obtain valuable information before implementing knowledge management initiatives.

### Significance of the Study

The implications of this study can be of significant value to organizations as they prepare to implement knowledge management initiatives. The findings could help organizations assess the likelihood that implementation of knowledge management initiatives will be successful or will increase the organization's competitive advantage in relationship to the current organizational culture. This is of paramount importance because organizations make significant investments of time, money, and personnel when they embark on knowledge management initiatives (Parikh, 2001). A better understanding of the relationship between culture and knowledge management may increase their ability to make wise choices regarding how these resources are used. These decisions are also important from a global perspective. As the global economy moves to a more knowledge-based one, the long-term well being of organizations demands that the implementation of strategic business initiatives be done successfully.

According to the Caribbean Economic Overview (2000), Caribbean countries with their fragile economies are very much at risk from the effects of globalization, advances in technology and telecommunication networks. The degree to which these countries will realize benefits in the global market will depend on their ability to recognize and harness these changes and develop and

apply these changes to their unique situations. As the global community moves towards a more knowledge-based economy, it is apparent that the Caribbean countries must ensure that any initiative embarked upon is successful. To this effect extensive research must be employed to see that efforts are cost-effective and sustainable.

### Summary

The first chapter of this research study introduced the importance of studying the relationship between organizational culture and knowledge management. It highlighted some of the benefits that can be gained from this relationship. The chapter also contained background information on the problem, knowledge management, organizational culture, the research questions and the significance of the study.

## CHAPTER II

### II. LITERATURE REVIEW

#### Introduction

This literature review examines studies that have been conducted in the knowledge management and organizational culture. It also discusses empirical studies that have been conducted utilizing the Competing Values Framework to analyze organizational culture.

#### Research Perspectives on Knowledge Management

The application of knowledge management as a business strategy is a recent phenomenon so there is limited research in this area. With the emergence of more knowledge management specific technologies and tools, more high-level research is being conducted to develop comprehensive frameworks and techniques to further advance the process (Parikh, 2001). The literature review on knowledge management examines researches that have been conducted in this discipline to clarify some of the nebulous issues. Specifically, the review examines studies to ascertain what cultural types or cultural values were found to be most pertinent to effective implementation of knowledge management.

Lesser and Stock (2001) studied seven organizations to ascertain the relationship between communities of practice and organizational performance. Communities of practice is one of the strategies organizations use to implement knowledge management. They defined communities of practice as groups of organizational members with social, professional and common interests who meet regularly to engage in learning and sharing.

Specifically, Lesser and Stock (2001) seek to build an understanding of how communities of practice create organizational value through social capital. They defined social capital as the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit. Their theory was that social capital is resident in communities of practice that leads to behavioral changes, which result in greater knowledge sharing, which in turn positively influence business performance.

Lesser and Stock (2001) identified three dimensions of social capital; structural, relationship, and cognitive. Structural dimension refers to the ability of individuals to make connections to others within an organization. These connections constitute information channels that reduce the amount of time and investment required to gather information. The relationship dimension is the making of connections through networking and the development of interpersonal relationships that reinforce the initial connections between individuals. There are

four components to this dimension: obligations – a sense of mutual reciprocity or willingness to return favor with a favor; norms – the setting of common standards of behavior that individuals are willing to abide by; trust – involves the predictability of another person’s actions in a given situation; and identification – refers to the process whereby individuals see themselves as united with another person or set of individuals. The cognitive dimension is the development of shared context between two parties. It is the extent to which people share a common language, which facilitates their ability to gain access to people and their information.

Lesser and Stock (2001) identified four specific outcomes associated with the communities of practice and linked these outcomes to the basic dimensions of social capital. The four areas of organizational performance identified were:

- Decrease in the learning curve of new employees
- A more rapid response to customer needs and inquires
- Reduction in rework and prevention of “reinvention of the wheel”
- Spawning of new ideas for products and services

The researchers (Lesser & Stock, 2001) concluded that communities of practice played a significant role in the development of social capital, which in turn influenced organizational outcomes. The three dimensions of social capital, which are related to organizational culture values, were very integral to effective outcomes. They concluded that communities of practice provide



values to the organization and can be used as a vehicle for improving organization performance.

Berman-Brown and Woodland (1999) did a case study of Essvac, a capital-intensive organization that employed a number of knowledge workers. At Essvac, although there was some sharing of knowledge, the organizational culture has led this shared knowledge to become internalized by the recipients and used as a component of their own individual power bases for the purposes of control and defense. The knowledge resided at the individual level, which resulted in poor feedback systems and very little production of new knowledge. It was not recognized as a manageable resource by any level of the organizational management. The organizational culture was seen to be a major barrier to both organizational and individual learning.

Berman-Brown and Woodland (1999) paper demonstrated that shared knowledge is a symbol of trust and unity in an organization. The knowledge required for development requires openness, sharing and flexibility. The greater an organization shares knowledge, the more new knowledge is created and the organization could become a formidable competitor compared to an organization comprising discrete individuals each acquiring knowledge for personal career enhancement.

Jarvenpaa and Staples (2001) examined the perceptions of ownership of organization's information and knowledge by individuals who have created or acquired the information and expertise. They specifically examined the factors that would help to determine if a person perceived the information and expertise to be the property of the organization versus that of the individual. They utilized Constant, et al. theory of information sharing to analyze the factors that support or constrain information sharing.

The results of the Jarvenpaa and Staples (2001) study showed that belief in self-ownership was positively associated with organizational ownership. This suggested a collaborative type of ownership for both information and expertise and for both internal and external sharing situations. Employees were more likely to assign organizational ownership rights to their work if they had the propensity to share pro-social attitudes. The results also indicated that organizational culture had a very direct impact on how individuals perceived the ownership of organizational knowledge. Individuals that rated their organizations high on solidarity relationships based on common task, mutual interests, and shared goals, also rated high their belief in organizational property of their labor. A culture characterized by solidarity, perhaps, gave them increased confidence that their willingness to share the ownership of their labor would be fairly reciprocated with appropriate benefits or rewards by the organization.

What emerged from the Jarvenpaa and Staples (2001) study was a sense that information and knowledge can be seen as a shared good between the individual and the organization. The perception was that this type of shared possession of information and knowledge was built on trust, or willingness to be interdependent on the other party without immediate reciprocal action from the other party. The study established that knowledge management interventions should take into consideration that the beliefs of self-ownership are particularly critical for expertise sharing and separation and impersonalization of knowledge is likely to reduce the beliefs of self and knowledge ownership. Hence, organizations need to devise tactics that nurture co-ownership of knowledge and information.

Pan and Scarbrough (1999) did an exploratory case study to develop an analysis of the dynamics of successful knowledge management practices from a socio-technical perspective, and to consider the extent to which such practices can be generalized and adapted by others. The research was based on an empirical investigation of knowledge sharing processes in Buckman Laboratories, an international organization.

The company's approach was to incorporate knowledge management practices into its culture to ensure that it achieved its mission to compete on knowledge. The case study illustrated that much of the value added by the technical changes associated with knowledge management results not from

technology itself but from the new arrangements and roles of the organization, management and the people who make the best use of technology. It clearly indicated that knowledge management is a process that facilitates knowledge creation and sharing through corporate intranets and communities of practice. Knowledge management changed the communication patterns between individuals and teams, and also altered the design of the organization by fostering new processes and structures (Pan & Scarbrough, 1999).

The Pan & Scarbrough (1999) study suggested that, however, successfully an organization transforms its environment for knowledge management in the short term, a more daunting task for organizations is that of facilitating a truly knowledge entrepreneurial culture in the long run. Specifically, the task for the organization is to continuously create and maintain a knowledge-enterprising culture and community whereby associates feel comfortable with knowledge and are motivated, rewarded and entrepreneurial.

The Pan & Scarbrough (1999) study concluded that knowledge management systems involve more than technology but rather a culture in which new roles and constructs are created. Learning and competence development need to be encouraged, and a knowledge sharing system instituted to foster the integration of knowledge towards business objectives.

Nidumolu, Aldrich, and Subramani (2001), in their ethnographic case study of a market research firm, highlighted the factors responsible for the limited success of the knowledge management initiative in the firm. The purpose of the study was to review one organization's attempts to introduce changes that would positively affect its capabilities to respond to its customers and the environment in which it was operating.

Nidumolu et al. (2001) suggested that for knowledge management efforts to be successful, researchers and practitioners need to be sensitive to features of the context of generation, location, and application of knowledge. They stated that situational organizational learning perspective was a useful lens to examine phenomena related to the establishment of knowledge management initiatives. They defined organization learning perspective as knowledge that is embedded in connections between individuals, in rules, divisions of labor and roles and in other artifacts which determines patterned interaction and behavioral regularities.

Nidumolu et al. (2001) based their research on the premise that the fundamental purpose of managing knowledge should be built on some degree of shared context. Shared context is defined as a shared understanding of an organization's external and internal worlds and how they are connected. Since knowledge is embedded in individuals, the focus on the patterned interactions was the key source of insight in examining the impact of knowledge management

initiatives or other organizational changes that aim to influence organizational action in a significant manner.

The results of the Nidumolu et al. (2001) study indicated that that situational knowledge web was positively related to successful outcomes when organizations attempt changes that were central to knowledge management. The results also highlighted the need to focus on the management of the habitat, rather than the species when attempting these changes.

Gold, Malhotra, and Segars (2001) examined the relationship between knowledge management and organizational capabilities. They researched the perspective that a knowledge infrastructure consisting of technology, structure, and culture along with knowledge process architecture of acquisition, conversion, application, and protection are essential organizational capabilities for effective knowledge management. The main objective of the study was to provide a definitional and empirical context for assessing key organizational capabilities that directly impact an organization's ability to successfully implement knowledge management.

Gold, Malhotra, and Segars (2001) projected that organizations must develop an absorptive capacity, which is the ability to use prior knowledge to recognize new information and to apply this new knowledge to create new capabilities and resources. They stated that for this conversion to occur, there

must be the presence of social capital, which they defined as “the sum of actual and potential resources embedded within, available through, and derived from the network of relationships possessed by a social unit” (p. 187). A knowledge infrastructure consisting of technology, structure and culture is a key enabler of the social capital. This infrastructure refers to the presence of norms and trust mechanisms; shared contexts; and technology enablers.

Gold et al. (2001) results indicated that process capabilities of acquisition, conversion, application, and protection are positively related to organizational effectiveness and form an operational framework for managing knowledge. The results of the study provided an explanation for the competitive predisposition of a firm as it enters a program of knowledge management.

In summary, the literature review revealed that for the effective implementation of knowledge management a certain culture type must be present in an organization. All the studies alluded to specific cultural values or social context, which an organization must strive for in order to reap successful results from knowledge management. Specifically, the review highlighted for effective implementation of knowledge management a culture type, which emphasizes sharing, trust, involvement, openness, and creativity were required.

## Perspectives on Organizational Culture and the Competing Values Framework

From the organizational developmental perspective, many research studies have been conducted using the Competing Values Framework to examine the relationship between organizational culture and organizational effectiveness.

### Diagnosing Organizational Culture

According to Cummings and Worley (1997), researchers and practitioners have developed a number of useful approaches for diagnosing organizational culture. They described three different perspectives: the behavioral approach, the Competing Values approach, and the deep assumption approach. Each diagnostic perspective, even though different, is yet complementary and focuses on particular aspects of organizational culture.

### Behavioral Approach

According to Cummings and Worley (1997), the behavioral approach provides specific descriptions about task performance and the management of relationships in an organization. It emphasizes the surface level of organizational culture, the pattern of behaviors that produce business results and assesses key work behaviors that can be observed. The behavioral approach can be used to diagnose and assess the cultural risk of trying to implement organizational changes needed to support a new strategy because significant cultural risks can result when changes that are highly important to implementing a new strategy are incompatible with the existing patterns of behavior. It is an important



approach to use when managers want to determine whether implementation plans should be changed to manage around the existing culture, whether the culture should be changed, or whether the strategy itself should be modified or abandoned.

#### Deep Assumptions Approach

The deep assumption approach typically begins with the most tangible level of awareness and then works down to the deep assumptions. It emphasizes the deepest levels of organizational culture, which are the generally unexamined assumptions, values, and norms that guide members' behavior and that often have a powerful impact upon organization effectiveness.

#### The Competing Values Approach

The Competing Values approach assesses an organization's culture in terms of how it resolves a set of value dilemmas. It suggests that an organization's culture can be understood in terms of four important "value pairs"; each pair consists of contradictory values placed at opposite ends of a continuum. The four value pairs are internal focus versus external focus, organic processes versus mechanistic processes, innovation versus stability, and people orientation versus task orientation. Organizations are faced with these competing values of internal versus external focus and must choose between attending to internal operations or their external environment for continued survival. Too

much emphasis on either can result in missing important changes in the competitive environment.

### The Competing Values Framework

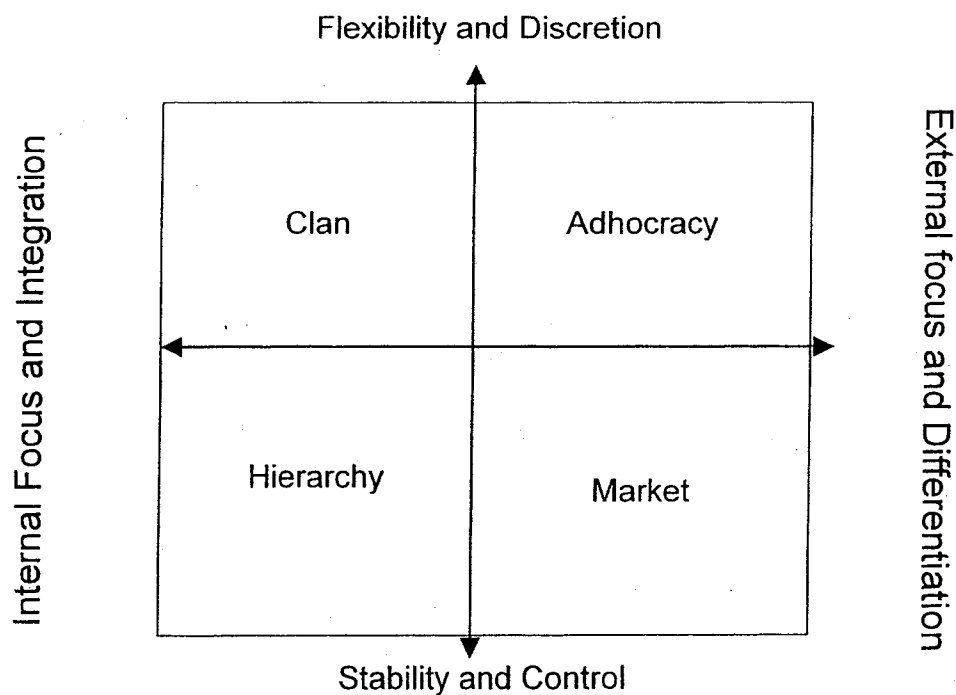
According to Cameron and Quinn (1999), the competing values framework has been found to have a high degree of congruence with well-known and well-accepted categorical schemes that organize the way people think and process information, and their values and assumptions. They further stated that the Framework was empirically derived and has been found to have both face and empirical validity, and helps integrate many of the dimensions of organizational culture proposed by various authors.

Robert Quinn and John Rohrbaugh (1983) developed the Competing Values Framework from research they conducted on the relationship between organizational culture and the major indicators of effective organizations. Over thirty indicators of effectiveness were statistically analyzed and reviewed by notable organizational theorists and researchers. Emerging out of this study were two major dimensions that organized the indicators into four main clusters.

One dimension differentiates effectiveness on a range from flexibility to stability (see Figure II.1). The effectiveness criteria is on a continuum range where organizations are viewed as effective, if they are changing and adaptable; to other organizations that are viewed as effective, if they are stable and

predictable. The flexibility-oriented organizations support differentiation and decentralization, while the control-oriented organizations support integration and centralization. The second dimension differentiates effectiveness on a range from internal orientation to external orientation. Internal oriented organizations are viewed as effective if they have harmonious internal characteristics, and emphasize maintenance of the existing system. External oriented organizations are those that are judged to be effective if they are focused on interacting or competing with others outside their boundaries and seek improvements in competitive position by tracking environmental changes (Cameron & Quinn, 1999).

Figure II.1 - The Competing Values Framework (Cameron & Quinn, 1999)



Together these two dimensions form four quadrants that have distinct sets of organizational effectiveness indicators that define the core values of organizations and represent what people value about an organization's performance. The unique quality about these four core values is that they represent opposite or competing assumption, that is, each continuum highlights a core value that is opposite from the value on the other end of the continuum, flexibility versus stability and internal versus external. It is these competing or opposite values in each quadrant that give rise to the name for the model, the Competing Values Framework (Cameron & Quinn, 1999).

#### The Four Cultures

According to the Cameron and Quinn (1999) Competing Values Framework, there are four distinct culture types (see Figure II.II):

1. Clan or Group
2. Adhocracy or Developmental
3. Hierarchical
4. Market or Rational

#### The Clan Culture

The Clan culture is situated in the quadrant that emphasizes internal focus and flexibility. The dominant core values of this culture are teamwork, openness, participation and employee development. The organization focus is the development of a humane work environment where employees' participation, commitment, and loyalty are facilitated (Cameron & Quinn, 1999).

### The Adhocracy Culture

The Adhocracy culture is in the external focus and flexibility quadrant. The core values of this culture are adaptability, flexibility, and creativity. The adhocracy culture is found in organizations where specialized or temporary teams are required for tasks that are highly technical, with high levels of uncertainty, and ambiguity. In this culture high emphasis is placed on individuality, risk taking, and anticipating the future (Cameron & Quinn, 1999).

### The Hierarchy Culture

Hierarchy culture is situated in internal focus and stability quadrant. The core values are stability, predictability, and efficiency. The hierarchical culture is found in organizations that are formalized and structured workplaces, which are governed by formal rules and policies (Cameron & Quinn, 1999).

### The Market Culture

The Market culture is situated in the external focus and stability quadrant. The core values of the market culture are competitiveness, goal achievement and productivity. The organization that embraces this culture has a competitive orientation towards rival and is driven by customer focus and premium returns on assets (Cameron & Quinn, 1999).

**Figure II.II - The Competing Values of Leadership, Effectiveness, and Organizational Theory (Cameron & Quinn, 1999)**

		FLEXIBILITY DISCRETION	
Culture Type:	<b>CLAN</b>	Culture Type:	<b>ADHOCRACY</b>
Leader Type:	Facilitator Mentor Parent	Leader Type:	Innovator Entrepreneur Visionary
Effectiveness Criteria:	Cohesion Morale Development of Human Resource	Effectiveness Criteria:	Cutting-edge output Creativity Growth
Management Theory:	Participation fosters commitment	Management Theory:	Innovativeness fosters new resources
INTERNAL MAINTENANCE AND INTEGRATION		EXTERNAL POSITIONING AND DIFFERENTIATION	
Culture Type:	<b>HIERARCHY</b>	Culture Type:	<b>MARKET</b>
Leader Type:	Coordinator Monitor Organizer	Leader Type:	Hard-driver Competitor Producer
Effectiveness Criteria:	Efficiency Timeliness Smooth functioning	Effectiveness Criteria:	Market share Goal achievement Beating competitors
Management Theory:	Control fosters efficiency	Management Theory:	Competition fosters productivity
		CONTROL STABILITY	

### Organizational Culture Researches

Harris and Mossholder (1994) researched organizational culture congruence with individuals' affective orientation toward the organization and their jobs. They examined this condition during significant cultural transformation and across four cultural dimensions of the Competing Values Framework. The

affective outcomes examined were job satisfaction; job involvement; job turnover intention and organizational commitment.

Harris & Mossholder (1994) asserted that individual congruence with organizational culture positively associated with individuals' affective orientation toward the organization and their job. The study explored two hypotheses. The first hypothesis asked the question, "Do the individual-culture congruence effects typically found in stable cultural contexts also manifest themselves during significant cultural transformation?" The second hypothesis asked, "Do individual-culture congruencies assessed relative to diverse dimensions of an organization's culture have similar affective implication?"

Harris & Mossholder (1994) results indicated that across the four culture types, the discrepancy between individuals' assessments of the current culture and their ideal culture explained significant variance in two organization-focused affective outcomes, organizational commitment and optimism about the organization's future. With regards to the hypotheses, the results suggested that individual-culture congruence effects can be manifested in transformational context and congruencies with different cultural dimensions may not always have similar affective implications. The results indicated that the Group culture had significant variance with job satisfaction; the Hierarchical culture had significant variance with job involvement; and the Developmental and Rational culture types had significant variance with job turnover intention.

Chang and Wiebe (1995) conducted an exploratory study to seek out the ideal culture profile for total quality management. The research question that they studied was, "Is there an optimal organizational culture that is most suitable for implementing total quality management?"

To test their hypothesis Chang and Wiebe (1995) invited a panel of experts from the Conference Board Total Quality Management Center who were actively working in various aspects of total quality management. The panel was asked to indicate the extent to which each of the six issues on the Competing Values Framework questionnaire describes ideal cultural characteristics that support total quality management philosophy.

Chang and Wiebe (1995) results obtained, indicated that the total quality management philosophy is not characterized by one pure culture but represented a combination of different types. The Group and Developmental culture types drove the dominant characteristics of an ideal organization where the organization was perceived as a personal place where employees could share and were willing to take risk. The organization climate was one of participation, trust, openness and a strong support of dynamism and readiness to meet new challenges.



In a study conducted by Dension and Mishra (1995) to develop a model of organizational culture and effectiveness, the results indicated that there was a positive relationship between culture and effectiveness. Four organizational culture traits, involvement; consistency; adaptability; and mission, were linked to the nature of organizational effectiveness as identified by five organizations and chief executives officers from 764 organizations in two separate studies.

The two major traits of effectiveness identified by Dension and Mishra (1995) were growth and profitability. The involvement and adaptability traits were indicators of flexibility, openness, and responsiveness, which were strong predictors of growth. The consistency and mission traits were indicators of integration, direction, and vision, which were predictors of profitability. Each of the traits was indicated as significant predictors of other effectiveness criteria, such as quality and employee satisfaction.

Dension and Mishra (1995) results of the studies suggested that each of four cultural traits showed significant positive association with a wide range of measures of organizational effectiveness. The results also suggested that there were interpretable linkages between specific traits and specific criteria of effectiveness.

Goodman, et al. (2001) utilized the Competing Values Framework to examine the relationship between organizational culture and quality of work life

experienced by hospital nurses. The study focused on how differences in organizational culture profiles may be related to various affective outcomes of quality of work life, such as organizational commitment; job satisfaction; job involvement; empowerment; and intent to turnover.

Goodman, et al. (2001) study developed two hypotheses. The first hypothesis was "Group cultural values would be positively associated with organizational commitment, job satisfaction, job involvement and empowerment and negatively associated with intent to turnover". The second hypothesis was "Hierarchical cultural values would be negatively associated with organizational commitment, job satisfaction, job involvement and empowerment and positively associated with intent to turnover".

The findings of Goodman, et al. (2001) indicated that there was a positive relationship among Group cultural values and organizational commitment, job involvement, empowerment and satisfaction. The Hierarchical cultural values were negatively related to these factors. The results highlighted that the control/flexibility dimension of the Competing Value Framework was more important to the quality of work life outcomes than the internal/external dimension.

In a research utilizing the Competing Values Framework, Dellana and Hauser (1999) examined the relationship between Total Quality Management

(TQM) and organizational culture. The Baldrige Award criteria were used to define the TQM position. The criteria comprised seven categories, which include leadership; information and analysis; strategic quality planning; human resource development and management; management of process quality; quality and operational results; and customer focus and satisfaction.

Dellana and Hauser (1999) results indicated that Adhocracy (Developmental) culture was most strongly linked with TQM success. The Group culture also showed a positive correlation to TQM but not as strong as the adhocracy. Flexibility dimension of the Competing Values Framework was very important in determining the success of TQM, as both the Adhocracy and Group cultures are found within this quadrant. Organizations that emphasize the values in this quadrant support decentralization and differentiation and have a climate of trust, participation, adaptability, positive attitude toward the organization, and equity of rewards.

The literature review of the Competing Values Framework to diagnose organizational culture established that there was a positive relation between organizational culture and effective organizational outcomes. The four culture types in the framework were seen to have correlation with organization outcomes. In particular, the Group and Adhocracy (Developmental) culture types were indicated in positive association with most organization effective outcomes. The flexibility dimension of the framework was indicated as being very important

to the implementation of successful organizational outcomes as both the Group and Adhocracy culture types were found in this dimension.

#### An Environmental Context for Knowledge Management

A review of the literature points to specific cultural dimensions for the effective implementation of knowledge management. Gupta and Govindarajan (2000) stated that the crucial requirement for effective knowledge management is building an effective social ecology, a social environment within which people operate. "Peter Novins, partner at Ernst & Young's knowledge-based business solution practice, said that a company must redefine all of its business processes to foster a culture that supports knowledge sharing." (Wah, 1999).

Thomas, Kellogg and Erickson (2001) posited that the management of knowledge occurs within an intricately structured social context and that knowledge is inextricably bound up with human cognition. They further stated that a realistic and effective approach to knowledge management, includes supporting new forms of group interaction, methods for enhancing creativity, support for expressive communication which result in organizational opportunities to build social capital, including trust and cooperation among colleagues.

Some researchers outlined specific conditions for development of knowledge management initiatives. Armbrecht, et al. (2001) identified three enablers for the effective implementation of knowledge management, culture,

infrastructure and information technology. They stated that culture was at the highest level and permeates the organization and influences the infrastructure and the information technology. Developing a culture that values sharing, encouraging and enabling individuals to interact, collaborate, teach, and learn from one another was vital element in the knowledge flow framework.

Von Krogh, Ichijo and Nonaka (2000) identified five knowledge enablers that support knowledge creation within an organization: Instill knowledge, managed conversations, mobilized knowledge activists, create the right context, and globalize local knowledge. They stated that to foster an environment that positively affects knowledge creation calls for an atmosphere at a deeper level, which relies on a new sense of emotional knowledge and care in the organization, one that highlights how people treat each other, and encourages creativity, even playfulness. They said activities should include facilitating relationships and conversations as well as sharing local knowledge and care across the organization or beyond geographic and cultural borders.

Inkpen (1996) describes six factors that facilitate effective knowledge management: flexible learning objectives; leadership commitment; a climate of trust; a tolerance for redundancy; creative chaos; and performance myopia. He stated that successful organizations must be able to create, gather, and cross-fertilize knowledge across individuals and operating units. The creation of knowledge requires collaboration, sharing, interaction, and integrating, all of

which imply the transfer of knowledge between individuals. The present business environment, he said, demands strategic focus, flexibility and innovation.

Zack (1999) postulated that effective knowledge creation, sharing, and leveraging require an organizational climate and reward system that value and encourage cooperation, trust, learning and innovation.

### The Perceived Organizational Culture for Knowledge Management

The above examination of the literature shows a multiplicity of conditions and the environment that are required for the effective implementation of knowledge management. Despite the multitude of concepts that have been put forward, several cultural dimensions or values can be identified as central to the phenomenon of knowledge management. The cultural dimensions that were found to be vital to the implementation of knowledge management are:

- Sharing
- Flexibility
- Collaboration
- Trust
- Learning
- Innovation

## Summary

The literature review gave an overview of the studies that have been conducted in knowledge management, and organizational culture using the Competing Values Framework. The literature reviewed showed that there is a gap in empirical studies in the knowledge management arena (Gold, Malhotra, & Segars, 2001). The review also highlighted that there is a strong association between knowledge management and organizational culture. Specifically, certain cultural values were identified that were integral to the effective implementation of knowledge management.

The review of the organizational culture studies indicated that the Competing Values Framework was a valid instrument that has been used successfully to analyze the relationship between organizational culture and effective organizational outcomes (Dellana & Hauser; 1999, Harris & Mossholder, 1994; Sheridan, 1992). The review also indicated that there was positive correlation between organizational culture and affective organizational outcomes.

## CHAPTER III

### III. METHODOLOGY

#### Introduction

The purpose of this research was to determine if there is a relationship between organizational culture and knowledge management. The research examined how four different types of organizational culture might be related to knowledge management. Specifically, the study focused on how differences in organizational culture profiles, measured by the Competing Values Framework, might be related to the combined dimensions of knowledge management: creation; capture, organization; storage; dissemination and application.

Chapter III discusses the research questions, research design including the identification of the dependent and independent variables; data collection instruments including their development, reliability and validity and scoring instructions; statistical hypotheses; and data analysis procedures.

#### Research Questions

This study addresses the following two research questions, 1) "Does organizational culture have a positive effect on the implementation of knowledge management"? 2) "Is there a culture type that supports the successful implementation of knowledge management"? The search for the answers to



these research questions utilized the Competing Values Framework to establish four culture types. These four culture types embedded in the framework were assessed to ascertain which of the culture types' values were most likely to impact upon the successful implementation of knowledge management. Obtaining the answers to the following research questions is an essential first step for organizations to obtain valuable information before implementing knowledge management initiatives.

### Research Design

The purpose of this research project was to establish a better understanding of the relationship between organizational culture and knowledge management that would lead organizations to increase their ability to make wise choices regarding the successful implementation of this strategic business initiative.

This project was a correlational rather than a causal study. The research used a one-time survey to obtain research data. Data consisted of two major sets of information, four different types of organizational culture and six dimensions of knowledge management. The six dimensions of knowledge management were calculated to give the dependent variable of knowledge management. The existence of a significant relationship was used to permit prediction.

### Independent Variables

The four independent variables of interest to this research project were the four culture types identified by Cameron and Quinn (1999) in the Competing Values Framework:

1. Clan/Group
2. Adhocracy/ Developmental
3. Hierarchy
4. Market/ Rational

### Dependent Variable

The dependent variable of primary interest to this research project was knowledge management. This variable was arrived at by adding the six processes described in knowledge management cycle:

- Knowledge creation
- Knowledge capture
- Knowledge organization
- Knowledge storage
- Knowledge dissemination
- Knowledge application.

Figure III.I – Organizational Culture Types

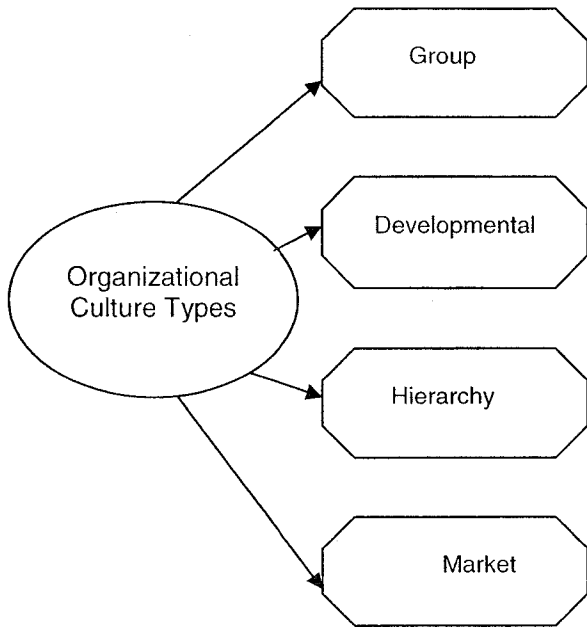


Figure III.II – Knowledge Management

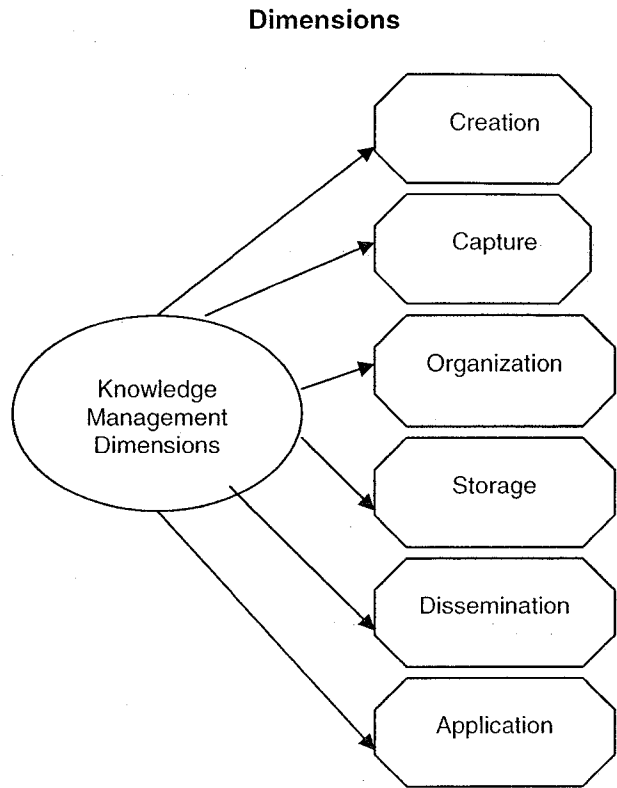
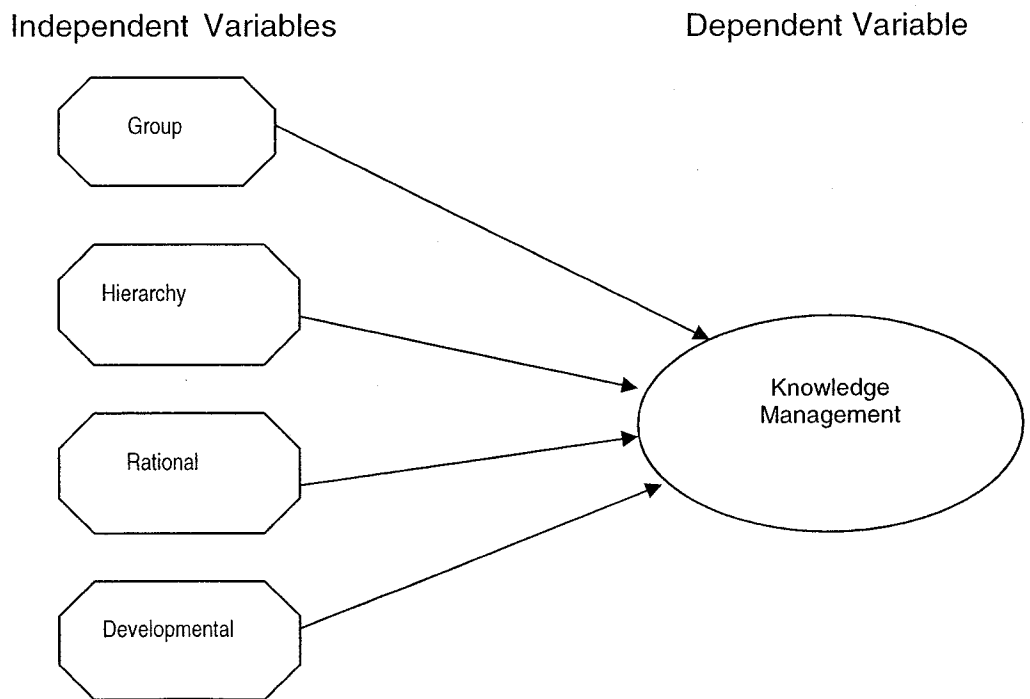


Figure III.III – Variables Relationship



## Data Collection Procedures and Instrument

The target population of this study was organizations in Jamaica that were involved in knowledge management initiatives. The data collection was not limited to a particular industry or organization type and size. Employees at every level in targeted organizations were surveyed to get a comprehensive view of the culture types and knowledge management initiatives.

The research instrument (Appendix I) that was utilized contains three components:

- A. Organizational and Respondent Profile
- B. Organizational Culture Assessment Instrument (OCAI) developed by Cameron and Quinn (1999);
- C. Knowledge Management Assessment Instrument (KMAI) developed by this researcher.

## Organizational and Respondent Profiles

The first component of the questionnaire was concerned with the organizational profile and personal demographic characteristics of the respondents. This information was used to summarize the aggregate characteristics for the sample population. This information was necessary for making statistical comparisons regarding organizational personal characteristics of age, education, gender, rank, and years of service.

This research used all ethical research standards and procedures. The name of the respondent was optional and all responses were held in strict confidence. The organizations participating in the research could request partial or complete anonymity. In this research all organizations identities were kept in anonymity.

### The Organizational Culture Assessment Instrument

Cameron and Quinn (1999) validated an organizational culture instrument: The Organizational Culture Assessment Instrument (OCAI). The Organizational Culture Assessment Instrument (OCAI) uses a five-point Likert scale. There are six questions that address various components of organization culture. Each question presents four alternatives that represent the same quadrant of the framework.

The OCAI is validated for measuring six key dimensions of organizational culture: (1) organization's dominant characteristics; (2) organizational leadership; (3) management of employees; (4) organization glue; (5) strategic emphases; and (6) organization's criteria of success. The Organizational Culture Assessment Instrument is a public-domain document, and consequently, no permission was necessary for utilizing this instrument.

## The Knowledge Management Assessment Instrument

The last component of the questionnaire set was the Knowledge Management Assessment Instrument (KMAI). The KMAI was developed by this researcher based on the review of literature in knowledge management discipline. A review of the literature showed that knowledge management is a continuous process and becomes an expanding spiral as more and more knowledge is added and managed over time. The knowledge management cycle is divided into sequential and overlapping phases of three to eight processes depending on the researcher (Parikh, 2001; Wiig, 1993). This study combined and refined the different processes of three researchers (Wiig 1993; Parikh, 2001; Horwitch & Armacost, 2002). A six-process knowledge management cycle was adapted: knowledge creation, knowledge capture, knowledge organization, knowledge storage, knowledge dissemination, and knowledge application.

As denoted in the literature review, an organization that is actively implementing knowledge management as a strategic advantage must be utilizing all six processes to varying degree depending on their environment. Each process makes up a component of the dependent variable to be used to measure knowledge management activity within organizations.

The KMAI consists of six questions, each representing a process. Each question has four descriptive statements to assess the level of activity within the

knowledge management cycle. Each question utilizes a five-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree).

### Validity and Reliability

To check the validity and reliability of the instrument, it was first given to faculty members and students of Nova Southeastern University who were conducting research in knowledge management. They checked the questions for appropriateness, readability and comprehensiveness. Their suggestions and corrections were incorporated into a revised questionnaire.

A pilot survey was conducted with two financial institutions that were instituting knowledge management in their strategic plan. The results indicated a relationship between knowledge management and organizational culture.

### Statistical Hypotheses

The following five hypotheses were tested:

#### Hypothesis 1

H1<sub>N</sub>: There is no significant relationship between organizational culture and knowledge management.

H1<sub>A</sub>: There is a significant relationship between knowledge management and organizational culture.

## Hypothesis 2

H2<sub>N</sub>: There is no relationship between Group culture type and knowledge management.

H2<sub>A</sub>: There is a relationship between Group culture type and knowledge management.

## Hypothesis 3

H3<sub>N</sub>: There is no relationship between Developmental culture type and knowledge management.

H3<sub>A</sub>: There is a relationship between Developmental culture type and knowledge management.

## Hypothesis 4

H4<sub>N</sub>: There is no relationship between Market culture type and knowledge management.

H4<sub>A</sub>: There is a relationship between Market culture type and knowledge management.

## Hypothesis 5

H5<sub>N</sub>: There is no relationship between Hierarchy culture type and knowledge management.

H5<sub>A</sub>: There is a relationship between Hierarchy culture type and knowledge management.



### Data Analysis Procedures

Descriptive analysis was used to provide a demographic profile of the organizations and respondents. This data provided information regarding the respondents' age, education, gender, rank, and years of service.

Inferential analysis was used to reject or accept the null hypotheses. The research questions studying the relationship between organizational culture and knowledge management characteristics was established using standard statistical measures.

Pearson Correlation was used to validate if a relationship existed between knowledge management and organizational culture. The criterion for the rejection of the null hypothesis was a determination of statistical significance at the  $p < 0.5$  level of probability.

### Summary

Chapter III discussed the study's research questions, research design including the identification of the dependent and independent variables; data collection instruments including their development, reliability and validity and scoring instructions; statistical hypotheses; and data analysis procedures.

## CHAPTER IV

### IV. DATA ANALYSIS AND RESULTS

#### Introduction

The results of the data collection and data analysis of the study are presented in this chapter. Reliability and Validity pretest results are also included. All the data collected were primary data and were collected from eight organizations in Jamaica. The chapter presents demographic results of the 120 respondents and the eight organizations studies. Hypotheses testing results are presented along with correlation results of the four organizational types and knowledge management.

#### Reliability of the Instrument

The reliability of the research instrument is concerned with its consistency. Cronbach alpha was used to assess the internal consistency of the results across items within a pre-test. Alpha values of 0.7 are acceptable indicators of internal consistency as suggested in the literature (Brightman & Schneider, 1994). The OCAI questionnaire has been tested for reliability in previous studies (Quinn & Cameron, 1999).

In a pre-test of the instrument, Alpha values were calculated for each multi-item construct in the KMAI questionnaire. All the calculated alpha values were found to be above 0.7, indicating that all the scales are reliable.

**Table IV.I – Reliability Scores**

Questionnaire Variables	Cronbach's Alpha	
Knowledge Creation	N of Cases = 57	N of items = 4
	Alpha = .8428	
Knowledge Capture	N of Cases = 61	N of items = 4
	Alpha = .8869	
Knowledge Storage	N of Cases = 60	N of items = 4
	Alpha = .8793	
Knowledge Organization	N of Cases = 57	N of items = 4
	Alpha = .8615	
Knowledge Application	N of Cases = 60	N of items = 4
	Alpha = .8041	
Knowledge Dissemination	N of Cases = 61	N of items = 4
	Alpha = .8904	

### Validity of the Instrument

Validity of the instrument is concerned with the extent to which it measures the variables correctly. The validity for the OCAI was tested in several previous studies and was found to be statistically valid (Quinn & Cameron, 1999).

The validity for the KMAI questionnaire was tested using correlation techniques. The correlation coefficients for all the constructs were found to be statistically significant. These results are presented in Appendix II.

### Sample Description

The sample for this study consisted of 120 respondents from eight different organizations in Jamaica. The eight organizations that participated in the research represented various sectors of the Jamaican business industry such as Finance, Health, Education, Government and others. The organizations on a whole had over 100 employees. The respondents were from many different departments, including Customer Service, Information System, Human Resource and Administration (see Appendix III). 140 completed questionnaires were returned and 120 were useable. This represented 86.7% of returned questionnaires.

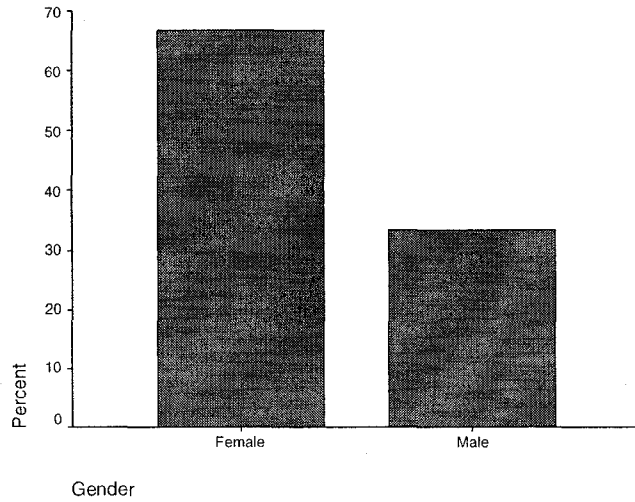
### Demographic Data

Statistical Package for Social Science (SPSS) was used as the statistical analysis tool. The demographic characteristics of the sample included age, education; gender, rank, number of on job training, number of promotions, years of service, and type of organization. The respondents were also asked if knowledge management was currently a part of their organization's operation.

## Gender

The majority of respondents were female, 67% and male, 33%.

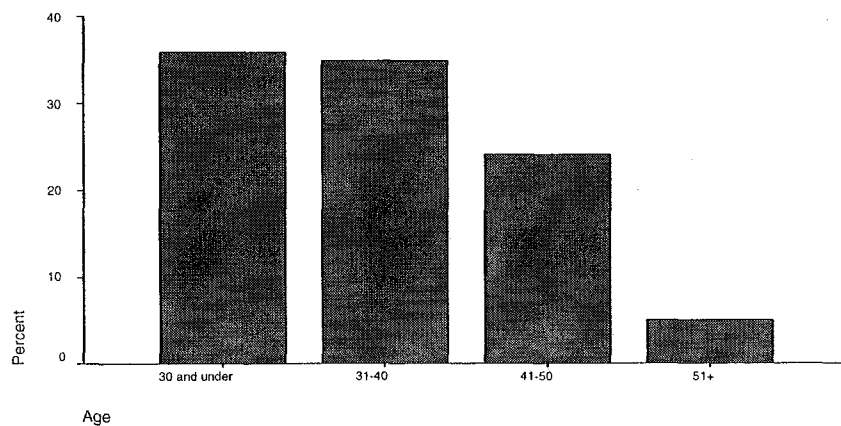
**Figure IV.I - Gender**



## Age

The majority of the respondents were under 40 years old. In the 30 and under category there were 36% respondents. The 31-40 category contained 35%. The 41-50 and over 50 categories contained 24% and 5% respectively.

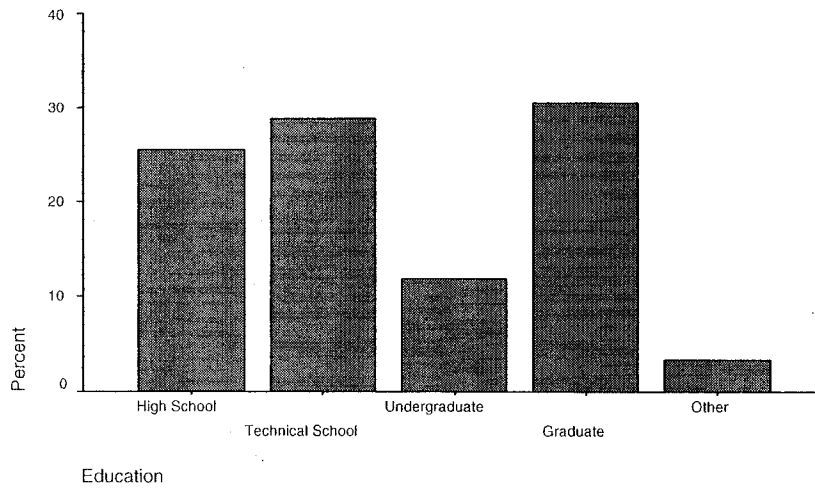
**Figure IV.II - Age**



## Education

All of the respondents have at least a high school education with 12% having obtained college degrees and 30% with graduate degrees.

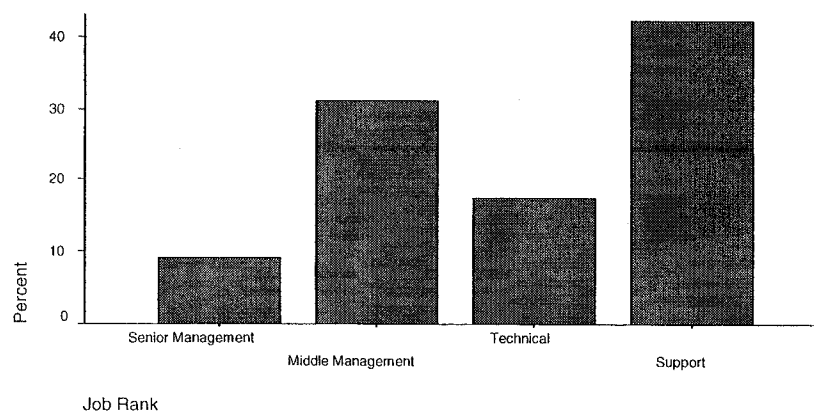
**Figure IV.III - Education**



## Job Rank

The majority of the respondents were supporting staff, 42 %. Middle Management made 31% of the respondents and Technical staff 17%. Only 9% of the respondents were Senior Managers.

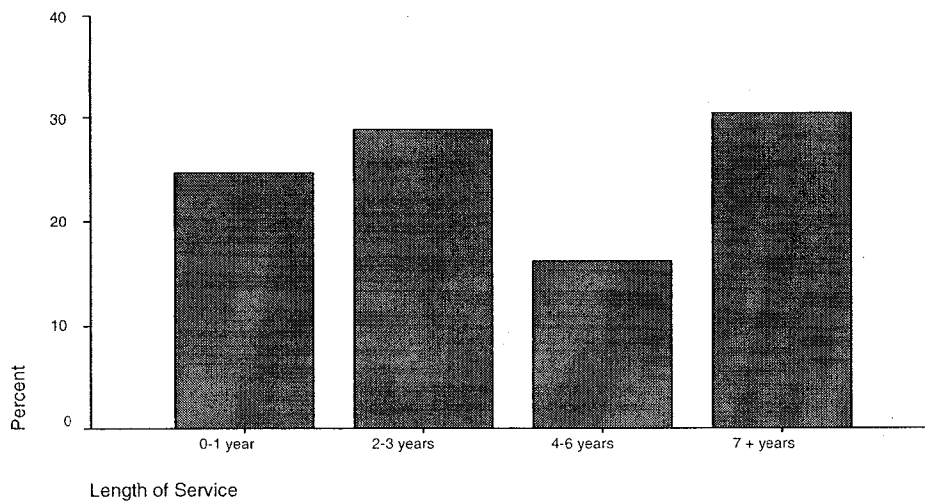
**Figure IV.IV – Job Rank**



## Years of Service

Over 30% of the respondents have been with their organizations for seven and more years. 29% of the respondents have been with the organization for 2-4 years and 25% for 1 year and less.

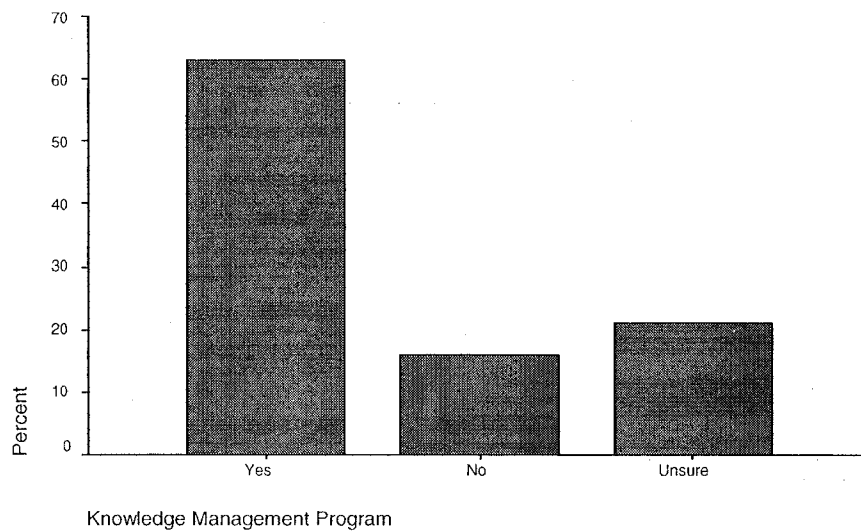
**Figure IV.V – Length of Service**



## Knowledge Management

In responding to the question of the knowledge management program within their organizations, 63% of the respondents stated that there was a knowledge management program. 16% stated that there was not a program and 21% were unsure of the existence of a knowledge management program.

**Figure IV.VI – Knowledge Management**



### Organizational Profile

Eight organizations participated in the study. The organizational culture types and knowledge management results are listed by each organization below. In the assessment of the organizational culture in the eight organizations, the most common dominant culture type was Hierarchy. In five of the organizations the respondents stated that their organizations had more than one dominant culture types.

#### Organization A

According to 83% of the respondents, the dominant culture type in Organization A was Market. Over 70% of the respondents stated that Group and Hierarchy were dominant secondary culture types.



**Table IV.II – Organization A: Organizational Culture Types**

Culture Type	Agree	Unsure	Disagree	Total
	(%)	(%)	(%)	(%)
Group	74	26	0	100
Developmental	50	50	0	100
Market	83	27	0	100
Hierarchy	72	13	0	100

When asked if knowledge management was currently taking place in their organizations, 81% of the respondents responded in the affirmative. The calculated results of the six dimensions of knowledge management revealed that knowledge management was actively taking place in the organization.

**Table IV.III – Organization B: Knowledge Management**

Knowledge Management	Agree	Unsure	Disagree	Total
	(%)	(%)	(%)	(%)
Stated	81	11	8	100
Calculated	74	26	0	100

## Organization B

In Organization B, the respondents stated that the dominant culture was Hierarchy. They stated that Market culture was secondary. The results revealed limited influence of the Group and Developmental culture types.

**Table IV.IV – Organization B: Organizational Culture Type**

Culture Type	Agree (%)	Unsure (%)	Disagree (%)	Total (%)
Group	20	40	40	100
Developmental	9	45.5	45.5	100
Market	46	36	18	100
Hierarchy	55	27	18	100

According to 50% of the respondents in Organization B, knowledge management was actively taking place in the organization. The calculated results of the six dimensions of knowledge management showed knowledge management occurring only at a low level of 30%.

**Table IV.V – Organization B: Knowledge Management**

Knowledge Management	Agree (%)	Unsure (%)	Disagree (%)	Total (%)
Stated	50	40	10	100
Calculated	30	40	30	100

### Organization C

In Organization C the respondents stated that the dominant culture type was Hierarchy. They indicated that there was little influence of Market, Group and Developmental culture types.

**Table IV.VI – Organization C: Organizational Culture Types**

Culture Type	Agree	Unsure	Disagree	Total
	(%)	(%)	(%)	(%)
Group	15	70	15	100
Developmental	10	58	32	100
Market	21	63	16	100
Hierarchy	56	44	0	100

In comparing the stated knowledge management results versus the calculated results, the analysis revealed that although the stated results showed 55%, the calculated results were at 65%. Although 65% of the calculated results revealed knowledge management as active, 35% of the results also showed uncertainty to the occurrence of knowledge management in the organization.

**Table IV.VII – Organization C: Knowledge Management**

Knowledge Management	Agree	Unsure	Disagree	Total
	(%)	(%)	(%)	(%)
Stated	55	25	20	100
Calculated	65	35	0	100

## Organization D

Respondents in Organization D stated that the four culture types were dominant in the organization.

**Table IV.VIII – Organization D: Organizational Culture Types**

Culture Type	Agree (%)	Unsure (%)	Disagree (%)	Total (%)
Group	64	29	7	100
Developmental	75	25	0	100
Market	77	23	0	100
Hierarchy	75	18	7	100

According to 79% of the respondents, knowledge management is actively occurring in the organization. In calculated the six dimensions for knowledge management, the results revealed knowledge management at 42% level.

**Table IV.IX – Organization D: Knowledge Management**

Knowledge Management	Agree (%)	Unsure (%)	Disagree (%)	Total (%)
Stated	79	0	21	100
Calculated	42	58	0	100

## Organization E

In Organization E, the respondents stated that the dominant culture types were Group and Hierarchy. They were unsure of the other two culture types in the organization.

**Table IV.X – Organization E: Organizational Culture Types**

Culture Type	Agree	Unsure	Disagree	Total
	(%)	(%)	(%)	(%)
Group	85	15	0	100
Developmental	35	50	15	100
Market	48	43	9	100
Hierarchy	85	15	0	100

According to 68% of respondents, knowledge management is an integral part of the organization operation. However, in responding to the six dimensions of knowledge management, the respondents were highly unsure of the occurrence of knowledge management in the organization.

**Table IV.XI – Organization E: Knowledge Management**

Knowledge Management	Agree	Unsure	Disagree	Total
	(%)	(%)	(%)	(%)
Stated	68	23	9	100
Calculated	20	80	0	100

## Organization F

The dominant culture type in Organization F, according to the respondents, was Hierarchy. 50% of the respondents stated that Market culture type was secondary. The respondents were highly unsure of the other two culture types in the organization.

**Table IV.XII – Organization F: Organizational Culture Types**

Culture Type	Agree (%)	Unsure (%)	Disagree (%)	Total (%)
Group	25	50	25	100
Developmental	25	50	25	100
Market	50	25	25	100
Hierarchy	67	33	0	100

In responding to the question if knowledge management was a part of organization operation, 50% of the respondents stated that it was not an integral part of the organization operation. For the calculated results of knowledge management, equal of amount of respondents agreed as were unsure of the occurrence of knowledge management. The results were inconclusive.

**Table IV.XIII – Organization F: Knowledge Management**

Knowledge Management	Agree (%)	Unsure (%)	Disagree (%)	Total (%)
Stated	25	25	50	100
Calculated	50	50	0	100

### Organization G

In Organization G the respondents stated that Hierarchy was the dominant culture type. The respondents also stated that Group and Market culture types were secondary.

**Table IV.XIV – Organization G: Organizational Culture Types**

Culture Type	Agree	Unsure	Disagree	Total
	(%)	(%)	(%)	(%)(%)
Group	62.5	37.5	0	100
Developmental	25	62.5	12.5	100
Market	62.5	37.5	0	100
Hierarchy	86	14	0	100

In both stated and calculated results of knowledge management, the respondents stated that knowledge management was not actively taking place in the organization.

**Table IV.XV – Organization G: Knowledge Management**

Knowledge Management	Agree	Unsure	Disagree	Total
	(%)	(%)	(%)	(%)
Stated	30	50	20	100
Calculated	29	57	14	100

## Organization H

The respondents in Organization H stated that both Market and Hierarchy culture types were dominant in the organization. They also stated that Group and Developmental culture types were dominant in a secondary position.

**Table IV.XVI – Organization H: Organizational Culture Types**

Culture Type	Agree (%)	Unsure (%)	Disagree (%)	Total (%)
Group	64	27	9	100
Developmental	60	30	10	100
Market	80	10	10	100
Hierarchy	80	10	10	100

The respondents had similar views on the stated and calculated knowledge management. They stated that knowledge management is occurring at a very high level in the organization. They stated that all six dimensions of knowledge management were taking place.

**Table IV.XVII – Organization H: Knowledge Management**

Knowledge Management	Agree (%)	Unsure (%)	Disagree (%)	Total (%)
Stated	73	9	18	100
Calculated	73	18	9	100



## Inferential Analysis

The hypotheses examined the relationship between organizational culture and knowledge management. The first hypothesis sought to find if there was a relationship between organizational culture and knowledge. Hypothesis 2 examined the relationship between Group culture and knowledge management and hypotheses 3-5 examined the relationship between Developmental, Market and Hierarchical culture types and knowledge management respectively.

## Analysis of Research Hypotheses

### Hypothesis 1

H<sub>1N</sub>: There is no significant relationship between organizational culture and knowledge management.

H<sub>1A</sub>: There is a significant relationship between knowledge management and organizational culture.

Pearson Correlation was used to analyze the relationship between organizational culture and knowledge management. The Pearson Correlation analysis of organizational culture types and knowledge management revealed that there was a positive correlation. Developmental and Group culture types had the greater correlation at 0.669 and 0.609 respectively. The Market culture type had the lowest positive correlation at 0.447. All the correlations were highly significant at 0.000, therefore the null hypothesis was rejected.

Table IV.XVIII – Pearson Correlations: Hypothesis 1

		Correlation				
		GRO	DE	MAR	HIER	KNM
GRO	Pearson	1.0	.65**	.49**	.73**	.60**
	Sig. (2-		.00	.00	.00	.00
	N	11	10	10	10	8
DE	Pearson	.65**	1.0	.78**	.48**	.66**
	Sig. (2-	.00		.00	.00	.00
	N	10	10	10	9	8
MAR	Pearson	.49**	.78**	1.0	.41**	.44**
	Sig. (2-	.00	.00		.00	.00
	N	10	10	11	10	8
HIER	Pearson	.73**	.48**	.41**	1.0	.51**
	Sig. (2-	.00	.00	.00		.00
	N	10	9	10	10	8
KNM	Pearson	.60**	.66**	.44**	.51**	1.0
	Sig. (2-	.00	.00	.00	.00	
	N	8	8	8	8	9

\*\* Correlation is significant at the 0.01

For hypotheses 2 - 5, frequency analysis was used to assess the relationship.

### Hypothesis 2

H<sub>2N</sub>: There is no relationship between Group culture type and knowledge management.

H<sub>2A</sub>: There is a relationship between Group culture type and knowledge management.

In the analysis only one organization claimed the Group culture type and this was shared with the Hierarchy culture type. Although the respondents stated that the organization was managing knowledge, the calculated results revealed that not all the six dimensions of knowledge management were present in the organization. There was, therefore, not enough information to test this hypothesis and the result was thus inconclusive.

**Table IV.XIX – Hypothesis 2**

Organization	Dominant Culture	Knowledge Management	
		Stated	Calculated
E	Group	Yes	No
	Hierarchy		

### Hypothesis 3

H3<sub>N</sub>: There is no relationship between Developmental culture type and knowledge management.

H3<sub>A</sub>: There is a relationship between Developmental culture type and knowledge management.

In the analysis only one organization denoted Developmental culture as dominant but this dominance was shared with two other culture types, Market and Hierarchy. The respondents stated that knowledge management was present in the organization but the calculated results showed otherwise. There

was not enough information to test this hypothesis and so the results were thus inconclusive.

**Table IV.XX – Hypothesis 3**

Organization	Dominant Culture	Knowledge Management	
		Stated	Calculated
D	Market	Yes	No
	Developmental		
	Hierarchy		

#### Hypothesis 4

H4<sub>N</sub>: There is no relationship between Market culture type and knowledge management.

H4<sub>A</sub>: There is a relationship between Market culture type and knowledge management.

Three organizations denoted the Market culture as dominant. In two of these organizations the calculated results of knowledge management revealed that all six dimensions of knowledge management were present in the organization. The null hypothesis was rejected.

Table IV.XXI – Hypothesis 4

Organization	Dominant Culture	Knowledge Management	
		Stated	Calculated
A	Market	Yes	Yes
D	Market	Yes	No
	Developmental		
	Hierarchy		
H	Market	Yes	Yes
	Hierarchy		

#### Hypothesis 5

H5<sub>N</sub>: There is no relationship between Hierarchy culture type and knowledge management.

H5<sub>A</sub>: There is a relationship between Hierarchy culture type and knowledge management.

Seven of the eight organizations denoted the dominant culture type as Hierarchy. Two of them showed positive results in knowledge management. One of these shared co-dominance with the Market culture. The other five organizations all showed negative results for knowledge management. The Null hypothesis was therefore accepted.

**Table IV.XXII – Hypothesis 5**

Organization	Dominant Culture	Knowledge Management	
		Stated	Calculated
A	Market	Yes	Yes
B	Hierarchy	No	No
C	Hierarchy	Yes	Yes
D	Market	Yes	No
	Developmental		
	Hierarchy		
E	Group	Yes	No
	Hierarchy		
F	Hierarchy	No	No
G	Hierarchy	No	No
H	Market	Yes	Yes
	Hierarchy		

### Significance of Results

Two tests were carried out on the research data to test the significance of the results, ANOVA – test of variances and Chi-Square – test of rows and columns for variable independence.

## ANOVA Test

The ANOVA test scores revealed F scores and significant levels less than 0.05. This indicated that there were variations between the groups.

Table IV.XXIII – ANOVA Test

		ANOVA				
		Sum of	df	Mean	F	Si
GRO	Between	22.6	3	7.5	17.8	.00
	Within	35.0	8	.42		
	Tot	57.6	8			
DE	Between	21.6	3	7.2	14.3	.00
	Within	41.7	8	.50		
	Tot	63.4	8			
MAR	Between	8.8	3	2.9	3.6	.01
	Within	64.8	8	.80		
	Tot	73.6	8			
HIERA	Between	11.4	3	3.8	8.0	.00
	Within	36.5	7	.47		
	Tot	48.0	8			

## Chi-Square Test

All the chi-square results indicated that the relationships were statistically significant at the 0.000 level.

Table IV.XXIV – Chi-Square Test

Test Statistics					
	GROUP	DEV	MARKT	BUREAU	KNMN
Chi-Square <sup>a,b,c</sup>	88.804	81.413	58.000	48.883	50.435
df	4	4	4	3	3
Asymp. Sig.	.000	.000	.000	.000	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency 22.4.

b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency 21.8.

c. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency 22.0.

d. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency 25.8.

e. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency 23.0.

## Summary

The chapter presented the results from the analysis of data collected. There were three data in the study – demographic, organization culture and knowledge management.

The purpose of the study was to examine the relationship between organization culture and knowledge management. The results revealed that there is a positive correlation between organizational culture and knowledge management.



In testing the hypotheses, the Market culture type showed a positive relationship with knowledge management. The null hypothesis was rejected. The Hierarchy culture showed negative relationship with knowledge management and the null hypothesis was accepted. There was insufficient information to evaluate the relationship of the Developmental and Group culture types with knowledge management.

## CHAPTER V

### V. DISCUSSION AND CONCLUSION

#### Introduction

The purpose of this study was to examine the relationship between organizational culture and knowledge management. Statistical analysis was used to determine the answer to the two research questions 1) “Does organizational culture have a positive effect on the implementation of knowledge management”? 2) “Is there a culture type that supports the successful implementation of knowledge management”? In this chapter findings from the results are discussed and implications and recommendations for future studies are presented.

#### Discussion

The results indicated that organizational culture had a positive correlation with knowledge management. The answer to the first research question is that organizational culture does have an impact on knowledge management. In the evaluation of the second research question, the Hierarchy culture type did not support the six knowledge management dimensions. While the Market culture

was found to support knowledge management, the results were inconclusive to relationship of knowledge management and the other two culture types. The results thus indicated that Market culture type had the necessary tenets to support knowledge management. Further research is needed to predict the relationship of the Group and Developmental culture types. The results were therefore not sufficient to predict which culture type that would conclusively support knowledge management.

The results indicated that some of the organizations had co-dominant culture types. The literature stated that such organizations would be very effective in managing knowledge. The results did not support this premise and did not in this instant supported Cameron and Quinn's (1999) contention that organization must balance contrasting operating values and orientations to adapt to the external environment.

A significant finding in this research was that Organization C, where respondents rated it as having a hierarchical culture, was very effective in managing its knowledge. Adler (1999) differentiated between two types of bureaucracies, coercive and enabling. Coercive bureaucracies, he stated, are characterized by the command and control culture, while, enabling bureaucracies are characterized by a supportive culture that values employees and allow for their active participation. Organization C, with a high indication of knowledge management can be perceived as an enabling bureaucracy. The findings also

supported another of Adler's (1999) points that organizations need some hierarchical structure to ensure efficiency and to avoid chaos. Although Hierarchy culture type was indicated as not being supportive of knowledge management, the analysis revealed that some organizations that had co-dominant Hierarchy culture types that support knowledge management.

Another significant finding in the analysis was the difference indicated by the respondents' responses to the occurrence of knowledge management in the organizations and the actual calculated values of knowledge management from its six identified dimensions. In the eight organizations only three organizations stated results corresponding to the calculated results. These findings can be attributed to how many organizations define or see knowledge management. Many researchers now agreed that knowledge management is more than just the storage and manipulation of information but that it is a process that requires the commitment to create and disseminate knowledge through the organization (Parikh, 2001; Marshall et al, 1996). In the results many organizations fell short when knowledge management was broken down into the six dimensions of creating, capturing, organizing, storing, disseminating and applying knowledge.

The Market culture type showed surprising results in the analysis. The correlation results showed that Market culture would have the weakest correlation to knowledge management. The findings revealed that out of the

three organizations with Market culture types, two of them were effectively managing their knowledge management initiatives.

### Implications

This study focused on the likelihood that implementation of knowledge management initiatives will be successful or will increase the organization's competitive advantage in relationship to the current organizational culture. Through empirical testing, the study strongly supports the notion that certain culture types do have some impact on the implementation of knowledge management.

The implications of this study have great value to organizations as they prepare to implement knowledge management initiatives. Organizations that are aware of their organizational culture types can plan strategically and make informed decisions on the type of knowledge management initiatives to employ. This is of paramount importance because organizations make significant investments of time, money, and personnel when they embark on knowledge management initiatives (Parikh, 2001). Organizations knowing the degree of success that is associated with a new business strategy can better apply scarce resources in more viable situations.

These implications are even more valuable to Caribbean countries that have very fragile economies and are more at risk from the effects of globalization, advances in technology and telecommunication networks. Caribbean organizations armed with this valuable knowledge of the relationship between organizational culture and knowledge management have another tool to make informed decisions and better cost-effective initiatives, impacting their competitive advantage in the global market (Caribbean Economic Overview, 2001).

#### Limitations

The results of the study should be viewed in the light of some limitations. The primary limitation in this study was the sample. The sample in this study can be termed a "convenience" one. This study involved self-administered questionnaires and was open to all levels of staff. In most of the organizations only a limited amount of senior management participated in the survey. The senior management may have relevant information that might have skewed the results in a different direction.

The sample size was also a limitation concern. The sample sizes in some of the eight organizations were small and might not be representative of all the players who might be instrumental in the effective implementation of knowledge management and organization culture development. For correlational studies at least 30 subjects are needed to establish the existence or non-existence of a

relationship (Brightman & Schneider, 1994). In most of the sample the populations were smaller than 30.

The eight organizations were also not adequate to get a full spread of culture types as required by the study. Although eight organizations were studied, some of the culture types did not show up as dominant and therefore the results were for these culture types were inconclusive. It is therefore recommended that for future studies that many more organizations are studied to get critical mass of information. These limitations were considered in the statistical analysis of the data.

#### Recommendations for Future Research

There are many opportunities for future research study in this area. One such opportunity would be to increase the sample size in order to examine the effect of all the culture types on knowledge management. More conclusive results are needed to see which culture type supports the effective implementation of knowledge management. This study revealed a positive correlation between the two.

Another opportunity for research would be to examine how different business sectors manage their knowledge processes. Although the eight organizations were drawn from different business sectors, this relationship was not evaluated in this study.

This study provided a new instrument, the Knowledge Management Assessment Instrument, for the measurement of knowledge management. The instrument passed the tests for reliability and validity. This instrument can be used to expand the research in knowledge management, which is still a new field of study and lacking in research.

### Conclusion and Summary

The purpose of this study was to examine the relationship between organizational culture and knowledge management. The results indicated that organizational culture had a positive correlation with knowledge management and that Hierarchy culture type did not support the successful implementation of knowledge management. The Market culture was shown to support knowledge management initiatives. The results were inconclusive about Group and Developmental culture types supporting knowledge management.

The findings revealed that further research studies were needed to find the culture type that directly support knowledge management and to examine how different business sectors manage their knowledge processes. The study also highlighted various recommendations for future studies.



## VI. APPENDICES

Appendix I: Research Instrument

Appendix II: Validity Test of Knowledge Management Assessment Instrument

Appendix III: Demographics Results for Organizations studied

Appendix IV: Survey Letters

## Appendix I: Research Instrument

Instrument for Measuring Organizational Culture and Knowledge  
Management

**Demographic Questions**

1. The major business function of my organization is

1. Finance
2. Health
3. Legal
4. Education
5. Government
6. Other \_\_\_\_\_

2. The number of persons in my organization

1. 10 and less
2. 11 - 40
3. 41 - 80
4. 81 - 100
5. 100+

3. My Job Rank is

1. Senior Management
2. Middle Management (Supervisor, Administrator)
3. Technical Staff
4. Support Staff

4. My Department or Unit is

1. Information Systems
2. Finance
3. Human Resource Management
4. Customer Service
5. Administration
6. Other \_\_\_\_\_

5. Length of time in my present position is

1. 0 – 1 year
2. 2 – 3 years
3. 4 – 6 years
4. 7 + years

6. My Sex is

1. Female
2. Male

7. I am in the Age Group

1. 30 and under
2. 31 - 40
3. 41 - 50
4. 51 +

8. Education level I attained is

1. High School Graduate
2. Technical Training/Diploma
3. Undergraduate Degree
4. Graduate Degree/Diploma
5. Other \_\_\_\_\_

9. Number of promotion I have received in the last 3 years is

1. 0
2. 1
3. 2
4. 3+

10. Amount of on the job training I have received in the last two years is

1. 0
2. 1
3. 2
4. 3
5. 4 +

11. My organization has a Knowledge Management Program in place?

1. Yes
2. No
3. Unsure

Knowledge Management is a process that helps organizations find, select, organize, disseminate, and transfer important information and expertise necessary for activities such as problem solving, dynamic learning, strategic planning, and decision-making.

## The Organizational Culture Assessment Instrument – Current

Scale:

1 - Strongly Agree                      2 – Agree                      3 - Neither Agree nor Disagree

4 –Disagree                      5 - Strongly Disagree

<b>1. Dominant Characteristics</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
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.					
<b>2. Organizational Leadership</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
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, organizing or smooth-running efficiency.					
<b>3. Management of Employees</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
A	The management style in my organization is characterized by teamwork, consensus, and participation.					
B	The management style in my organization is characterized by individual risk-taking, innovation, freedom, and uniqueness.					
C	The management style in my organization is characterized by hard-driving competitiveness high demands, and achievement.					
D	The management style in my organization is characterized by security of employment, conformity, predictability, and stability in relationships.					

		1	2	3	4	5
<b>4. Organization Glue</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
A	The glue that holds my organization together is loyalty and mutual trust. Commitment to this organization runs high.					
B	The glue that holds my organization together is commitment to innovation and development. There is an emphasis on being the cutting edge.					
C	The glue that holds my organization together is the emphasis on achievement and goal accomplishment. Aggressive and winning are common themes.					
D	The glue that holds my organization together is formal rules and policies. Maintaining a smooth-running organization is important.					
<b>5. Strategic Emphases</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
A	My organization emphasizes human development. High trust, openness, and participation persist.					
B	My organization emphasizes acquiring new resources and creating new challenges. Trying new things and prospecting for opportunities are valued.					
C	My organization emphasizes competitive actions and achievement. Hitting stretch targets and winning in the marketplace are dominant.					
D	My organization emphasizes permanence and stability. Efficiency, control and smooth operations are important.					
<b>6. Criteria of Success</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
A	My organization defines success on the basis of the development of human resources, teamwork, employee commitment, and concern for people.					
B	My organization defines success on the basis of having the most unique or newest products. It is a product leader and innovator.					
C	My organization defines success on the basis of winning in the marketplace and outpacing the competition. Competitive market leadership is key.					
D	My organization defines success on the basis of efficiency. Dependable delivery, smooth scheduling, and low-cost production are critical.					

### The Knowledge Management Assessment Instrument – Current

Scale:

1 - Strongly Agree

2 – Agree

3 - Neither Agree nor Disagree

4 - Disagree

5 - Strongly Disagree

<b>1. Creating Knowledge</b>		<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
A	My organization has mechanisms for creating and acquiring knowledge from different sources such as employees, customers, business partners and competitors.					
B	My organization encourages and has processes for the exchange of ideas and knowledge between individuals and groups.					
C	My organization rewards employees for new ideas and knowledge.					
D	My organization has mechanisms for creating new knowledge from existing knowledge and uses lessons learnt and best practices from projects to improve successive projects.					
<b>2. Capturing Knowledge</b>						
A	My organization responds to employees ideas and documents them for further development.					
B	My organization has mechanisms in place to absorb and transfer knowledge from employees, customers and business partners into the organization.					
C	My organization has mechanisms for converting knowledge into action plans and the design of new products and services.					
D	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.					
<b>3. Organizing Knowledge</b>						
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.					
B	My organization has mechanisms for filtering, cross listing and integrating different sources and types of knowledge.					
C	My organization gives feedback to employees on their ideas and knowledge.					
D	My organization has processes for applying knowledge learned from experiences and matches sources of knowledge to problems and challenges.					

<b>4. Storing Knowledge</b>						
A	My organization utilizes databases, repositories and information technology applications to store knowledge for easy access by all employees					
B	My organization utilizes various written devices such as newsletter, manuals to store the knowledge they captured from employees.					
C	My organization has different publications to display the captured knowledge.					
D	My organization has mechanisms to patent and copyright new knowledge.					
<b>5. Disseminating Knowledge</b>						
A	My organization has knowledge in the form that is readily accessible to employees who need it. (intranets, internet)					
B	My organization sends out timely reports with appropriate information to employees, customers and other relevant organizations.					
C	My organization has libraries, resource center and other forums to display and disseminate knowledge.					
D	My organization has regular symposiums, lectures, conferences, and training sessions to share knowledge.					
<b>6. Applying Knowledge</b>						
A	My organization has different methods for employees to further develop their knowledge and apply them to new situations.					
B	My organization has mechanisms to protect knowledge from inappropriate or illegal use inside and outside of the organization.					
C	My organization applies knowledge to critical competitive needs and quickly links sources of knowledge in problem solving.					
D	My organization has methods to analyze and critically evaluate knowledge to generate new patterns and knowledge for future use.					



## Appendix II: Validity Test Results of the Knowledge Management Assessment Instrument

### Creating Knowledge

		Correlations			
		Creating1	Creating2	Creating3	Creating4
Creating1	Pearson Correlation	1.000	.567**	.442**	.625**
	Sig. (2-tailed)	.	.000	.001	.000
	N	60	60	58	59
Creating2	Pearson Correlation	.567**	1.000	.511**	.738**
	Sig. (2-tailed)	.000	.	.000	.000
	N	60	60	58	59
Creating3	Pearson Correlation	.442**	.511**	1.000	.627**
	Sig. (2-tailed)	.001	.000	.	.000
	N	58	58	60	57
Creating4	Pearson Correlation	.625**	.738**	.627**	1.000
	Sig. (2-tailed)	.000	.000	.000	.
	N	59	59	57	59

\*\* Correlation is significant at the 0.01 level (2-tailed).

### Capturing Knowledge

		Correlations			
		Capturing1	Capturing2	Capturing3	Capturing4
Capturing1	Pearson Correlation	1.000	.731**	.683**	.661**
	Sig. (2-tailed)	.	.000	.000	.000
	N	61	61	61	61
Capturing2	Pearson Correlation	.731**	1.000	.743**	.655**
	Sig. (2-tailed)	.000	.	.000	.000
	N	61	61	61	61
Capturing3	Pearson Correlation	.683**	.743**	1.000	.573**
	Sig. (2-tailed)	.000	.000	.	.000
	N	61	61	61	61
Capturing4	Pearson Correlation	.661**	.655**	.573**	1.000
	Sig. (2-tailed)	.000	.000	.000	.
	N	61	61	61	61

\*\* Correlation is significant at the 0.01 level (2-tailed).

## Organizing Knowledge

### Correlations

		Organizing1	Organizing2	Organizing3	Organizing4
Organizing1	Pearson Correlation	1.000	.725**	.492**	.586**
	Sig. (2-tailed)		.000	.000	.000
	N	61	60	61	60
Organizing2	Pearson Correlation	.725**	1.000	.687**	.699**
	Sig. (2-tailed)	.000		.000	.000
	N	60	60	60	60
Organizing3	Pearson Correlation	.492**	.687**	1.000	.710**
	Sig. (2-tailed)	.000	.000		.000
	N	61	60	62	60
Organizing4	Pearson Correlation	.586**	.699**	.710**	1.000
	Sig. (2-tailed)	.000	.000	.000	
	N	60	60	60	60

\*\* Correlation is significant at the 0.01 level (2-tailed).

## Storing Knowledge

### Correlations

		Storing1	Storing2	Storing3	Storing4
Storing1	Pearson Correlation	1.000	.650**	.677**	.345**
	Sig. (2-tailed)		.000	.000	.008
	N	61	60	60	58
Storing2	Pearson Correlation	.650**	1.000	.747**	.518**
	Sig. (2-tailed)	.000		.000	.000
	N	60	60	59	57
Storing3	Pearson Correlation	.677**	.747**	1.000	.587**
	Sig. (2-tailed)	.000	.000		.000
	N	60	59	60	58
Storing4	Pearson Correlation	.345**	.518**	.587**	1.000
	Sig. (2-tailed)	.008	.000	.000	
	N	58	57	58	58

\*\* Correlation is significant at the 0.01 level (2-tailed).

## Disseminating Knowledge

### Correlations

		Disseminating1	Disseminating2	Disseminating3	Disseminating4
Disseminating1	Pearson Correlation	1.000	.382**	.650**	.547**
	Sig. (2-tailed)		.003	.000	.000
	N	61	60	61	61
Disseminating2	Pearson Correlation	.382**	1.000	.411**	.565**
	Sig. (2-tailed)	.003		.001	.000
	N	60	60	60	60
Disseminating3	Pearson Correlation	.650**	.411**	1.000	.579**
	Sig. (2-tailed)	.000	.001		.000
	N	61	60	61	61
Disseminating4	Pearson Correlation	.547**	.565**	.579**	1.000
	Sig. (2-tailed)	.000	.000	.000	
	N	61	60	61	62

\*\* Correlation is significant at the 0.01 level (2-tailed).

## Applying Knowledge

### Correlations

		Applying1	Applying2	Applying3	Applying4
Applying1	Pearson Correlation	1.000	.578**	.674**	.640**
	Sig. (2-tailed)		.000	.000	.000
	N	61	61	61	61
Applying2	Pearson Correlation	.578**	1.000	.720**	.663**
	Sig. (2-tailed)	.000		.000	.000
	N	61	61	61	61
Applying3	Pearson Correlation	.674**	.720**	1.000	.785**
	Sig. (2-tailed)	.000	.000		.000
	N	61	61	61	61
Applying4	Pearson Correlation	.640**	.663**	.785**	1.000
	Sig. (2-tailed)	.000	.000	.000	
	N	61	61	61	61

\*\* Correlation is significant at the 0.01 level (2-tailed).

## Appendix III: Demographic Results for Organizations Studied

**Number of persons in organisation**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	<10	1	.8	.9	.9
	11-40	13	10.8	11.2	12.1
	41-80	8	6.7	6.9	19.0
	81-100	14	11.7	12.1	31.0
	>100	80	66.7	69.0	100.0
	Total	116	96.7	100.0	
Missing	System	4	3.3		
Total		120	100.0		

**Function of business**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Finance	29	24.2	25.0	25.0
	Health	21	17.5	18.1	43.1
	Education	8	6.7	6.9	50.0
	Government	21	17.5	18.1	68.1
	Other	37	30.8	31.9	100.0
	Total	116	96.7	100.0	
Missing	System	4	3.3		
Total		120	100.0		

**Job Rank**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Senior Management	10	8.3	9.2	9.2
	Middle Management	34	28.3	31.2	40.4
	Technical	19	15.8	17.4	57.8
	Support	46	38.3	42.2	100.0
	Total	109	90.8	100.0	
Missing	System	11	9.2		
Total		120	100.0		

**Department**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Information Systems	4	3.3	3.4	3.4
	Finance	13	10.8	11.2	14.7
	HRM	5	4.2	4.3	19.0
	Customer Service	35	29.2	30.2	49.1
	Administration	13	10.8	11.2	60.3
	Other	46	38.3	39.7	100.0
	Total	116	96.7	100.0	
Missing	System	4	3.3		
Total		120	100.0		

**Length of Service**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0-1 year	29	24.2	24.6	24.6
	2-3 years	34	28.3	28.8	53.4
	4-6 years	19	15.8	16.1	69.5
	7 + years	36	30.0	30.5	100.0
	Total	118	98.3	100.0	
Missing	System	2	1.7		
Total		120	100.0		

**Gender**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	80	66.7	66.7	66.7
	Male	40	33.3	33.3	100.0
	Total	120	100.0	100.0	

**Age**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	30 and under	43	35.8	35.8	35.8
	31-40	42	35.0	35.0	70.8
	41-50	29	24.2	24.2	95.0
	51+	6	5.0	5.0	100.0
	Total	120	100.0	100.0	

**Education**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	High School	30	25.0	25.4	25.4
	Technical School	34	28.3	28.8	54.2
	Undergraduate	14	11.7	11.9	66.1
	Graduate	36	30.0	30.5	96.6
	Other	4	3.3	3.4	100.0
	Total	118	98.3	100.0	
Missing	System	2	1.7		
Total		120	100.0		

**Job Training**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	26	21.7	21.8	21.8
	2	28	23.3	23.5	45.4
	3	27	22.5	22.7	68.1
	4+	16	13.3	13.4	81.5
	5	22	18.3	18.5	100.0
Total		119	99.2	100.0	
Missing	System	1	.8		
Total		120	100.0		

**Promotions**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	61	50.8	51.3	51.3
	1	41	34.2	34.5	85.7
	2	16	13.3	13.4	99.2
	3+	1	.8	.8	100.0
	Total	119	99.2	100.0	
Missing	System	1	.8		
Total		120	100.0		

**Knowledge Management Program**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	75	62.5	63.0	63.0
	No	19	15.8	16.0	79.0
	Unsure	25	20.8	21.0	100.0
	Total	119	99.2	100.0	
Missing	System	1	.8		
Total		120	100.0		

## Appendix IV: Survey Letters

## Letter I – Organization

SHERON LAWSON  
Doctorial Candidate of Nova Southeastern University

Date

Dear:

I am a student of Nova Southeastern University pursuing studies for the degree, Doctorate of International Business (DIBA). I am currently conducting research for my dissertation. The title of my dissertation proposal is "Examining the Relationship between Organizational Culture and Knowledge Management". I would be grateful if you would permit me to conduct a survey of your organization.

The purpose of this research is to identify if a relationship exist between organizational culture and the effective implementation of knowledge management initiatives. The implications of this study can be of significant value to organizations as they prepare to implement knowledge management initiatives. The findings could help organizations assess the likelihood that implementation of knowledge management initiatives will be successful or will increase the organization's competitive advantage in relationship to the current organizational culture.

The survey will elicit the views of your staff members through a questionnaire to determine the type of organizational culture and the different knowledge management initiatives that are employed within your organization. This research will be conducted using all ethical research standards and procedures. Your responses will be held in strict confidence and complete anonymity is guaranteed.

I thank you for your participation. Your answers are of the greatest importance to the success of this study.

Sincerely,

Sheron Lawson, Miss  
Doctorial Candidate, Nova Southeastern University

C/O CARICOM SECRETARIAT • BANK OF GUYANA BUILDING • GEORGETOWN  
PHONE: 592-227-0530 • FAX: 592-227-0148 • EMAIL: [NOREHS@YAHOO.COM](mailto:NOREHS@YAHOO.COM)



Letter II: Respondent

SHERON LAWSON  
Doctorial Candidate of Nova Southeastern University

Date

Dear Respondent:

I thank you for taking time to respond to the attached questionnaire. Your participation in this study will be instrumental for me to complete work on my doctoral dissertation. I am a student of Nova Southeastern University. I am pursuing studies for the degree, Doctorate of International Business. I am currently conducting research for my dissertation. The title of my dissertation proposal is "Examining the Relationship between Organizational Culture and Knowledge Management".

The purpose of this research is to identify if a relationship exist between organizational culture and the effective implementation of knowledge management initiatives. The implications of this study can be of significant value to organizations as they prepare to implement knowledge management initiatives. The findings could help organizations assess the likelihood that implementation of knowledge management initiatives will be successful or will increase the organization's competitive advantage in relationship to the current organizational culture.

This survey asks for your opinion on culture and knowledge management within your organization. Since the questions ask for your judgment, there are no right or wrong answers. Sometimes people are tempted to answer survey questions in the way they think others, especially management, expected of them. Please respond based on your own judgment, regardless of what you think others expect or what is socially acceptable. This research uses all ethical research standards and procedures. Your responses will be held in strict confidence and complete anonymity is guaranteed.

Please answer all questions since each is important. Use a pen and mark all your responses by circling the appropriate number under each question. Please mark only **ONE** response to each question.

One again, I thank you for your participation. Your answers are of the greatest importance to the success of this study.

Sincerely,

Sheron Lawson, Miss  
Doctorial Candidate, Nova Southeastern University

c/o CARICOM Secretariat • Bank of Guyana Building • Georgetown  
Phone: 592-226-0158 • Fax: 592-227-0148 • email: [norehs@yahoo.com](mailto:norehs@yahoo.com)

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