

# Inter-Firm Knowledge Sharing Strategies To Ensure Successful Public Outsourcing In Kenyan County Governments

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**Abstract-** The concept of inter-firm knowledge sharing in public service delivery outsourcing has not been fully realized in Kenya's county governments' public service outsourcing strategies. Studies show that outsourcing strategies do not always work successfully unless the client and vendor align their interests and establish collaborative partnerships. The effective management of relationships in these partnerships is key to their success. Knowledge sharing is one of the strategies that firms are adopting to foster and build a reliable long lasting mutual relationship. In the long run, inter-firm knowledge sharing is likely to promote products and services that provide more value and are superior in solving problems for their users. Recent studies conducted on county governments and by extension, other public institutions in Kenya show that knowledge management and by extension knowledge sharing has not fully taken root in most public organizations. The study adopted an exploratory study approach. This research approach was motivated by the scanty number of studies on public outsourcing and especially outsourcing relationship management in Kenyan public organizations. The study therefore reviewed other scholarly works to recommend strategies that can be adopted to achieve two main objectives: The first objective was recommend steps that county governments can initiate in order to transform them into learning organizations that can manage their knowledge capital resources. The second objective was to advocate strategies that the county governments can initiate in their organizations to encourage knowledge sharing with their strategic partners. The study recommended a seven-step knowledge management strategy to enable county governments develop their knowledge management

capabilities. For knowledge sharing to thrive, the study recommends that organizations need to develop two very different types of capacity—*the enabling environment* and *technical skills*. The enabling environment is created largely by strategic decisions made by management of the organization. The technical skills operationalize effective knowledge capturing and sharing.

**Index Terms-** Knowledge Management, Knowledge Sharing, and Public Service Outsourcing

## I. INTRODUCTION

### 1.1 Background of the study

Due to the increasing complexity of technology and the inability of an organization to perform processes of logistics, manufacturing and distribution, every organization needs to focus on a specialized field of its activities and to outsource several activities to another companies or organizations (Mehregan et al, 2010). As quoted in (PricewaterhouseCoopers, 2007), "The exceptional corporations have come to grips with the tension between outsourcing and what they do in-house – as General Electric's Jack Welch put it: 'You shouldn't have in your back office what's in somebody's else's front office.' Public sector organizations need to bear this in mind as they contemplate the introduction of new models for service delivery. One of outsourcing's most significant benefits is the fact that it can help public sector organizations to intensify their focus on core competencies (their sovereign functions), while allowing other providers to carry out functions in which they have proven in-depth capabilities. Other

benefits can include reduced cost, improved performance, enhanced flexibility (making fixed costs variable, for example), the avoidance of capital expenditure and providing access to best practice(PricewaterhouseCoopers, 2007).

However, as Han, et al, (2006) argue, despite the growing trend to outsource, few organizations report success. Thus providers and client organizations are under increasing pressure to exhibit the value of their outsourcing. Improving the quality of the relationship between the organizations has been suggested as the best way to meet this challenge. This is also shared by a study by PricewaterhouseCoopers, 2007 that contends that there is an overwhelming consensus in favor of the fact that, provided they are properly managed, outsourcing/strategic partnerships do help organizations to achieve targeted benefits. The effective management of relationships in these partnerships is key to their success.Knowledge sharing is one of the strategies that firms are adopting to foster and build a reliable long lasting mutual relationship. The development of a partnership has also been studied extensively and a number of models have been proposed for building and sustaining the relationships (Lee, (2001), Lee et. al., 2003). Numerous other studies have found that the success of an outsourcing arrangement depends greatly on the success of the client-vendor relationship (Blumenberg et al. 2008; Goles and Chin 2005; Grover et al. 1996; Kishore et al. 2003; Qi and Chau 2012; Swar et al. 2012; Webb and Laborde 2005). As (IBM, 2003) put it, Outsourcing relationships are too important to be left to chance. The IBM study demonstrates that outsourcing is much more likely to succeed when the parties work together to build a solid framework on which to manage the relationship. A value-based relationship framework can serve as the cornerstone for a partnership that is: Built on trust, Sustained by the open exchange of knowledge and information, Open-ended and flexible, Equipped to overcome complexity and ambiguity, Dynamic vs. static, Able to identify and optimize opportunities for both partners, and Forged by a mutual commitment to sharing risks and rewards (IBM, 2003)

In recent studies, there has been much interest in knowledge sharing through outsourcing partnership and its effect on outsourcing success (Gallivan and

Oh, (1999); (Willcocks and Kern, (1998). Nonaka and Takeuchi (1995) said that knowledge sharing is based on organizational context, and thus that knowledge cannot easily be transferred among organizations with different cultures, structures, and goals. Therefore, for successful knowledge sharing in an outsourcing partnership, both the service receiver and provider should have a clear common vision and goals for partnership as well as a belief that their partners will not act opportunistically; this may be termed partnership quality (Lee and Kim, 1999). Another key source of successful knowledge sharing is an organizational ability to learn or acquire the needed knowledge from other organizations. Cohen and Levinthal (1990) described an absorptive capability as an organization's ability to recognize the value of new, internal information, assimilate it, and apply it to commercial ends for an organization's innovative capability. To evaluate and utilize outside knowledge, an organization should have the ability to exploit external knowledge that is largely a function of the level of prior related knowledge (Badaracco, (1991); Grant, (1996).

Following Selnes and Sallis (2003), this study defines inter-firm knowledge sharing as "*a joint activity between a supplier and a customer in which the two parties share information, which is then jointly interpreted and integrated into a shared relationship-domain-specific memory that changes the range or likelihood of potential relationship-domain-specific behavior*" (p.80). In today's knowledge-based economy, one of the major sources of competitive advantage has been the ability of the firm to transfer external knowledge efficiently and effectively (Argote and Ingram, 2000; Sambamurthy and Subramani, 2005; Pérez- Nordtvedt et al., 2008). As Joshi et al., (2007) argue, the agents could be an individual, team/department or an organization.The success of knowledge transfer not only depends on the capability of the source to provide the necessary knowledge, but also on the characteristic of the knowledge (Argote et al., 2000; McEvily and Chakravarthy, 2002) and the intention and the ability of the receiver to absorb and utilize the transferred knowledge (Steensma and Lyles, 2000; Tsang, 2002; Zahra and George, 2002). Besides, differences in cultures, structures and goals between the source and the recipient of knowledge may impede collaboration and consequently hinder

knowledge transfer (Lee, 2001; Levina and Vaast, 2008; Salmi and Torkkeli, 2009).

Various scholars have recognized that inter-firm knowledge sharing is critical to competitive success, noting that organizations learn by collaborating with other firms as well as by observing and importing their practices (Levinson and Asahi 1996; Powell, Koput and Smith-Doerr 1996). If the network can create a strong identity and coordinating rules, then it will be superior to a firm as an organizational form at creating and recombining knowledge due to the diversity of knowledge that resides within a network. In the long run, inter-firm knowledge sharing is likely to foster products and services that provide more value and are superior in solving problems for their users (von Hippel, 1998). Powell, Koput and Smith-Doerr (1996) argue that "when the knowledge base of an industry is both complex and expanding, and the sources of expertise are widely dispersed, the locus of innovation will be found in networks of learning (Le. inter-firm knowledge sharing), rather than in individual firms" (p. 116). It has been found that inter-firm knowledge sharing is most strongly related to superior product quality, an antecedent of superior customer value (Slater and Narver 2000).

Partnering firms develop their collective knowledge by constructing and modifying their inter-organizational environment, working rules, and options. This inter-organizational learning can be further specified as distinct from organizational learning by including the learning synergy or interaction effect between the organizations that would not have occurred if there had not been any interaction (Larsson, Bengtsson, Kenriksson and Sparks 1998). Hernandez- Espallardo et al (2010) argues that the capability for timely knowledge sharing and the ability to make use of the learning from external partners are critical factors in attaining benefits from partnership arrangements. These key resources, including people and knowledge should flow into and out of the collaborative venture and mechanisms should exist to facilitate the flows. Results of their study indicated that the supply chain's competitiveness lies in the adequate governance of the inter-firm relationships.

## **1.2 Background of Knowledge Management and Sharing in Kenya's Public Service**

Kenya like other African countries lags behind as far as knowledge management (KM) initiatives are concerned (Wamitu, 2016). Mosoti and Masheka (2010) argue that despite the existing literature on knowledge management, no research on the KM practices in organizations in Nairobi, Kenya had been done. Furthermore, the study findings reveal that no research on knowledge management practices has been done within Kenyan counties. A study by Mosoti, and Masheka, (2010) also found that knowledge management though practiced is not well understood by most public organizations within Nairobi. In fact most of the challenges faced by organizations in Nairobi are how to create and implement KM practice as part of organizational culture, organizational strategy and organizational leadership. In fact, although most organizations said that they used technology (web, internet, telephone) there is need for a synergy with other enabling factors (organizational culture, organizational strategy and organizational leadership). The study further revealed that organizational politics, ethnicity diversity, emotions, values do not favor organizations in Nairobi to capture tacit knowledge and transform it to explicit knowledge. Mosoti (2007) argues that while state corporations ascend to the benefits of knowledge management, lack of effective training, communication, information technology and leadership, has slowed down the adoption of knowledge management in state corporations. According to Ondari and Minishi (2007) the management of state corporations in Kenya rarely offer training to their employees on new innovations and management processes. Additionally, the performance evaluation process for state corporations and Civil service (Ministries /Departments) that was undertaken in August – September 2010 and made public in December, 2010 revealed that 50% of state corporations perform poorly in meeting their performance contracts due to lack of effective communication and leadership (Nyongesa et al., 2012). This coupled with slow adoption of new technologies in the public sector (Nyongesa et al., 2012) has led to slow adoption of human resource management solutions such as Knowledge Management. A study by Wamitu, (2016) argued that rigid bureaucracy and hierarchical chains that dictated the organizational structure and modes of operation characterized the Kenyan public service.

Bureaucracies are a precursor to a culture of mistrust and impersonal interactions, which inhibit tacit knowledge sharing. Most of the challenges faced by organizations particularly in Nairobi are how to create and implement knowledge management practices as part of organizational culture, organizational strategy and organizational leadership (Nyaga, 2014). Cultural and language barriers add challenges to the already difficult process of transferring tacit knowledge and are of particular concern in cases of cross-border outsourcing. Accordingly, most counties and organizations at large don't adequately leverage on their knowledge due to lack of a systematic and well coordinated approach to managing their knowledge management practices ( Nyaga, 2014). A study by Ondari&Minishi-Majanja; (2007) indicated that Governments needed to continually learn in order to remain relevant to the constituents they serve. Different knowledge management learning programs have to be put in place. Top managers and sponsors would require basic understanding on how KM can improve the government processes, its integration with the broader goals of e-Government implementation; and implementation requirements including technical and legislative changes. Programs for educating the civil servants on how to use KM effectively and incorporate its usage into existing government functions are also required.

### **1.3 Study Objectives**

The objectives of the study are twofold:

- i. To synthesize and recommend strategies that county governments can adopt to develop knowledge management capabilities and henceforth allow them to establish successful strategic outsourcing relationships that benefit from knowledge sharing
- ii. To recommend strategies that can be adopted to both promote successful knowledge management as well as inter-firm knowledge sharing to ensure successful outsourcing relationships

## **2.0 Literature Review**

### **2.1 Knowledge Management**

The term 'knowledge' as advanced by both Nonaka and Takeuchi (1995), originates from the human brain in the form of 'tacit' - personal and context-specific knowledge needs to be expressed by explicit measures

to achieve its 'explicit' - formal and systematic form. It is therefore essential to inculcate the sharing of both tacit and explicit knowledge among workers within the organization itself (Syed-Ikhsan& Rowland 2004). Polanyi (1966) differentiated knowledge into tacit and explicit knowledge. Explicit knowledge is cognitive, can be expressed in formal speech and exchanged by data. Explicit knowledge is easily articulated or reduced to writing, is often impersonal and formal in nature, and frequently takes the form of documents, reports, "white papers", catalogues, presentations, patents, formulas, etc. (Nonaka, 1991, 1994; Nonaka and Konno, 1998; Nonaka and Nishiguchi, 2001; Nonaka and Takeuchi, 1995; Nonaka and Teece, 2001; Zack, 1999b). In contrast, tacit knowledge (e.g. abilities, developed skills, experience, undocumented processes, "gut-feelings", etc.) is highly personal and difficult to reduce to writing. Tacit knowledge is rooted in an individual's experience and values (Nonaka and Konno, 1998). This type of knowledge may play an important role in the strategic planning performance of managers and professional staff (Bennett, 1998; Blattberg and Hoch, 1990; Brockmann and Anthony, 1998). Tacit knowledge is individual, context related, analogous, and practice related knowledge. Tacit knowledge can be exchanged only in face-to-face situations. Tacit knowledge is more valuable because it provides contexts for people, places, ideas and experiences; and it requires extensive personal contact and trust to share effectively (Polanyi, 1966).

While knowledge is increasingly being viewed as a commodity or intellectual asset, there are some paradoxical characteristics of knowledge that are radically different from other valuable commodities. These knowledge characteristics include the following: Using knowledge does not consume it; Transferring knowledge does not result in losing it; Knowledge is abundant, but the ability to use it is scarce; Much of an organization's valuable knowledge walks out the door at the end of the day. This leads us to Peter Drucker, (1993) argument that, "Knowledge is the only meaningful resource today." Therefore if an organization has to realize any benefits from knowledge, it has to exploit it today. Organizations have to come up with better knowledge management strategies to fully tap into their existing knowledge bases. As Grey, (1996) posits, Knowledge management is a collaborative and integrated

approach to the creation, capture, organization, access, and use of an enterprise's intellectual assets. Stankosky, (2008) shares this closely, by proposing that Knowledge management consists of "leveraging intellectual assets to enhance organizational performance."

A fundamental part in knowledge management is to spread and make knowledge accessible and usable within or between chosen organizations. As Ghosal and Moran 1996 (in Sambamurthy and Subramani (2005) argue, knowledge-based firms create competitive advantages through creation, coordination, transfer, and integration of knowledge. Knowledge transfer (KT) is sometimes used interchangeably with knowledge sharing (Jonsson 2008), so in order to explore knowledge transfer, knowledge sharing (KS) should not be ignored. Knowledge sharing is "The exchange of knowledge between and among individuals, and within and among teams, organizational units, and organizations. This exchange may be focused or unfocused, but it usually does not have a clear a priori objective," (Schwartz, 2006). Knowledge transfer on the other hand is "The focused, unidirectional communication of knowledge between individuals, groups, or organizations such that the recipient of knowledge (a) has a cognitive understanding, (b) has the ability to apply the knowledge, or (c) applies the knowledge," (Schwartz, 2006). Nahapiet&Ghoshal (2010) state that organizational knowledge is created as a result of the exchange of existing knowledge among current employees. Knowledge sharing within employees is important in building intellectual capital of an organization. Knowledge sharing between teams has become vital for organizations .Von Krough ,Ichijo&Nonaka (2000) stated that knowledge sharing is important in the creation of knowledge and in leveraging knowledge for improved organizational performance. Knowledge sharing is the critical means through which employees can contribute to knowledge application, innovation, and ultimately the competitiveness of the organization (Jackson, Chuang, Harden, Jiang & Joseph, 2006).

It is extremely important for organizations to create a culture of knowledge sharing so that they will not depend on the knowledge of a few and everyone in the organization would benefit from the knowledge the

firm has enabled (Ramirez 2011). Organizational knowledge sharing therefore can be the backbone of organizational learning and can bring enormous benefits to an organization (Argote, 2011; Liebowitz and Chen, 2001). When individuals share organizationally relevant experiences and information with one another, it significantly increases the resources of an organization and decreases time wasted in trial-and error (Lin, 2007). On the other hand, the unwillingness of knowledge sharing causes fatalities for organizational survival (Lin, 2007). Therefore, determining which factors contribute to effective knowledge sharing in an organization constitutes an important area of research (Hooff and Ridder, 2004).

## **2.2 Theoretical framework of knowledge sharing between organizations**

Two of the most common theories of knowledge sharing are social exchange theory (Kern and Willcocks 2002; Lee and Kim 1999; Mao et al. 2008) and relational exchange theory (Kern and Blois 2002; Olsson et al. 2008). Many of the social exchange theory propositions are well suited for analyzing the inter-organizational exchange relationship (Son et al. 2005). Relational exchange theory is also considered appropriate to examine client-vendor relationships as it looks at the factors that influence the quality of the relationship factors between the parties in an exchange relationship (Swar et al. 2012).

Social exchange theory is a broad conceptual paradigm that spans a number of social scientific disciplines, such as management, social psychology, and anthropology. Despite its name, it is not a single theory but is better understood as a family of conceptual models (Croppanzano& Mitchell, 2005). All social exchange theories treat social life as involving a series of sequential transactions between two or more parties (Mitchell, Cropanzano, & Quisenberry, 2012). Resources are exchanged through a process of reciprocity, whereby one party tends to repay the good (or sometimes bad) deeds of another party (Gergen, 1969; Gouldner, 1960). The underlying assumption of social exchange theory is that parties enter into and maintain relationships with each other, expecting that such behavior will be rewarding (Lambe et al. 2001). Social exchange theory emphasizes the concept of a longitudinal exchange relation between parties, focusing on the

social process of give-and-take in relations, with the aim to understand the behavior of each party contributing to the exchange (Kern 1997). Trust and commitment are viewed as central elements in social exchange theory (Lambe et al. 2001; Qi and Chau 2012). The quality of these exchanges is sometimes influenced by the relationship between the actor and the target (Blau, 1964). Economic exchanges tend to be *quid pro quo* and involve less trust and more active monitoring, whereas social exchange tend to be open-ended and involve greater trust and flexibility (Organ, 1988; 1990). Further, social exchange theory assumes the cooperative intention of both parties and such cooperation is a key attribute of social exchange theory (Das and Teng 2002; Lin et al. 2004).

Relational exchange theory on the other side is based on the concept that parties in an exchange are in mutual agreement that the resulting value of the exchange is greater than the value that can be obtained from other forms of exchange, or from exchange with a different partner (Goles and Chin 2005). Since both parties believe in the value created from the exchange, this motivates them to consider the relationship important, and to dedicate resources towards preserving and enhancing the relationship (Lambe et al. 2001). Relational exchange theory holds the view that contracts are unable to cover all possible contingencies that might arise during the life of the contract (McNeil 1980). Therefore, the key to determine how effective a contract is depends on the relational norms established between the two parties (Artz and Brush 2000). These relational norms are defined as a higher order construct, which determines the quality of a relationship (Kern and Blois 2002). Goles and Chin (2005) suggest that the most important relational norms are interdependence, consensus, commitment, cultural compatibility, flexibility, communication, coordination, conflict

- Problem identification
- Preparation for change
- Create the KM Team
- Knowledge Audit and Analysis
- Define Key solution features
- Implement building blocks
- Link knowledge to people

County Governments' KM

Enabling environment  
 Development of technical skills

Inter-firm Knowledge Sharing

resolution and integration (Goles and Chin 2005)

#### Figure 2.0 Proposed Knowledge Sharing Model

#### 2.3. Knowledge Management in the Public Sector

Knowledge Management (KM) is seen as an effective solution that can support public administrative activities of modernizing government (Mbhaliati, 2014). From the institutional point of view, the benefits of KM implementation are the cost reduction, whilst promoting economic development, increasing transparency in government, improving service delivery and facilitating the advancement of an information society (The World Bank 2011; United Nations 2014). KM programs in Public Organizations focus on ways to manage and government institutions know internally and among other Public Organizations, with the purpose of taking collaborative decisions (Jennex&Smolnik 2011). From a cultural approach KM in Public Organizations can be seen as a strategy for recover trust in government (United Nations 2007), its adoption involves innovation and sometimes implies reforming institutions. As we said before, KM can contribute to fight against corruption practices (Elkadi 2013; Tung &Rieck 2005), for that reason a major public aware of KM benefits is needed (Tung &Rieck 2005, p.437). Sharing plays an important role on implementing and executing KM system, knowledge sharing between employees needs a strong culture, trust and also transparency in all over the organization (Akhavan et al. 2006), leadership, time allocation, and trust encourage knowledge sharing (Mas-Machuca, &Martínez Costa, 2012) and social interaction, rewards, and organizational support had a significant effect on sharing knowledge (Amayah 2013). Without sharing, it is almost impossible for knowledge to be transferred to another person (Syed-Ikhsan& Rowland 2004). Knowledge Management denotes organizational practices aimed at harnessing available

knowledge assets to steer value creation (Wangare, 2015). The idea behind knowledge management, according to Servin (2005), is to establish an environment in which people are encouraged to create, learn, share and use knowledge together for the benefit of the organization and its various stakeholders. This argument is

arguably founded on the premise that

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each one of us is a store of knowledge- with training, experience and informal networks of friends and colleagues, whom we seek out when we want to solve a problem or explore an opportunity (Sveiby, 2005) and that no activity whatsoever can be carried out without suitably managing all the facets of the relevant knowledge (Hislop, 2013). Consequently, creating, sharing and using knowledge are primary functions of management. Technological infrastructure provides a control base for assessing KM initiatives success in order to detect opportunities for realignment organizational KM strategy (Akhavan et al. 2006).

The adoption of knowledge management practice in the public sector can benefit from the following recommendations: One, a main driver for the adoption of diverse KM initiatives in public services is the change of organizational culture. Second, develop new or consolidating outdated systems to improve the overall performance, and capitalize on a broader, more integrated and easier accessible knowledge base. Third, improve accountability and mitigating risk by making informed decisions and resolve issues faster, supported by access to integrated, transparent information across all organizational boundaries. Fourth, deliver better and more cost-effective constituent services such as enhancing partnerships with, and responsiveness to, the public, thereby clearly demonstrating a higher return on taxpayers' money (Riege and Lindsay, (2006).

### **2.3.2 Steps used to implementing Knowledge Management in County Governments**

Knowledge management is the planning, organizing, motivating, and controlling of people, processes and systems in the organization to ensure that its knowledge-related assets are imprinted effectively employed (King, 2009). Knowledge-related assets include knowledge in the form of printed documents such as patents and manuals, knowledge stored in electronic repositories such as a

“best-practices” database, employees’ knowledge about the best way to do their jobs, knowledge that is held by teams who have been working on focused problems and knowledge that is embedded in the organization’s products, processes and relationships (King, 2009). The proposed model in figure 2.0 above will guide knowledge management adoption in

County governments in Kenya. The study proposes the following seven steps as a starting block in implementing knowledge management in county governments. Of course there are other strategies that can be used. The following only serves as a guide: These steps are:

Step 1: Identify the organizational Problem: Successful implementation of knowledge management requires a clear identification of the business problem to be solved and an alignment of the knowledge management project with overall organizational objectives. It is essential that companies align knowledge management projects with business objectives. Dave Ledet, director of shared learning at Amoco Corp., found that if business objectives are not stated or are not clear for the knowledge management effort, it “tends to become just another activity imposed on people for no apparent reason.” He lists the following areas of focus: financial objectives, quality, customer satisfaction, and innovation (Elliot, 1996).

2: Prepare for Change : Knowledge management is more than just an application of technology. It involves cultural changes in the way employees perceive the knowledge they develop. A successful implementation of knowledge management also requires endorsement from corporate management. Only a fraction of the corporate changes required for successful knowledge management are technical. A common problem for those undertaking a knowledge management project is placing technology ahead of the ability or the desire of people to use it. Tom Davenport believes that two-thirds of a knowledge management effort needs to focus on non-technical issues: “If you’re spending more than one-third of your time on technologies for knowledge management, you’re neglecting the content, organizational culture and motivational approaches that will make a knowledge management system actually useful” (Davenport, 1997). The good news is that most workers, if given the required time, training and incentives, will begin to capture, manage and share knowledge with enthusiasm. Carla O’Dell and C. Jackson Grayson of the American Productivity and Quality Center (APQC) credit basic human nature: “We believe that most people have a natural desire to learn, to share what they know, and to make things better. This natural desire is thwarted by a variety of

logistical, structural, and cultural hurdles ... we erect in our organizations" (O'Dell and Grayson, 1998). As (Stuart, 1996) posits, "Effective knowledge management requires creating a supportive, collaborative culture and eliminating traditional rivalries. For some employees, that may mean painfully 'unlearning' long-standing lessons. Someone who interprets the old axiom 'Knowledge is power' to mean 'To stay strong, I've got to hide and protect what I know' isn't likely to embrace the concept of sharing resources." Leaders need to preach the gospel of sharing information. Managers need to rate performance based on employees' cooperative efforts. Rewards, whether they're key chains, peer esteem, or promotions, need to recognize knowledge sharing.

**3: Create the KM Team : A well staffed team with a strong team leader and "cross departmental" expertise is essential for successful implementation of knowledge management. Also essential to the team are individuals familiar with the business problem to be solved, including the content and processes involved.** Dan Holtshouse, director of business strategy at Xerox Corp., emphasizes the relationship between knowledge management and its knowledge workers: "Knowledge is largely about people and the work. The [knowledge management] technology should be designed at the start for supporting the character of the knowledge work itself"(Elliot, 1996). Departmental subject-matter experts who, in Holtshouse's terms, understand "the character of the knowledge work" are essential to define the knowledge the system needs to map.

**4: Perform the Knowledge Audit and Analysis** Knowledge Audit starts by working with employees to locate the knowledge they need to solve the business problem identified in step 1. The audit begins by breaking that information into two categories: what knowledge currently exists and what knowledge is missing. In addition to capturing explicit information assets, knowledge management systems must be structured to capture tacit knowledge. Tacit knowledge is the hand-on skills and experiences of individuals and it is most often the key to the effective solution of many critical business problems. The value of capturing tacit knowledge should not be underestimated. Davenport and Prusak have stated

that "having access to knowledge only when its 'owner' has time to share it or losing it entirely if she leaves the company are significant problems that threaten the value of the organization's knowledge capital" (Davenport, 1997). Once the knowledge has been captured, it must be organized in knowledge maps. Knowledge maps present users with the big picture of an organization's intellectual capital. They allow individuals to navigate a company's vast resources so they can quickly find relevant information.

**5: Define the Key Features of the Solution :** Creating a checklist of required key features will ensure that knowledge management technology you acquire will help solve your key business problems while enhancing your overall IT infrastructure. Although individual knowledge management systems are as different as each individual organization, they share many basic features. Such features, which typically address system openness, measurability, customizability and security, guide IS as it decides what products and technologies to buy or build internally.

**6: Implement the Building Blocks for Knowledge Management:** Implement knowledge management systems using a phased approach and a smooth "on-ramp". Each phase of the implementation addresses a specific part of the knowledge management solution, lays the foundation for the next phase, provides immediate benefits and provides a measurable ROI. An organization's knowledge management system is the collection of information technologies used to facilitate the collection, organization, transfer and distribution of knowledge between employees.

**7: Link Knowledge to People:** Finding "who knows what" in an organization has always been a time-consuming process and relying on serendipity is no solution to find the person with the right knowledge. The need to locate subject-matter experts is not new — and many enterprises have implemented "skills databases" to try to solve this problem. The link between knowledge and people distinguishes knowledge management systems from applications that manage explicit knowledge. According to Davenport, "Even the most user-friendly tools won't help much with managing information unless they're

strongly linked to people and processes. Knowledge dies when it is disembodied" (Stuart, 1996)

#### 2.4 Strategies to promote Knowledge Sharing

For an organization to share its knowledge, it must first transform itself into a learning organization that can manage its knowledge. A learning organization is "an organization that is skilled at creating, acquiring, and transferring knowledge and at modifying behavior to reflect new knowledge and insights" (Dubrin 2005). As defined by Peter Senge, learning organizations exhibit five main characteristics: personal mastery, mental models, a shared vision, team learning, and the fifth, integrative characteristic, systems thinking (Senge, 2006).

As Janus, (2016) contends, organizations in developing countries that make policy or deliver services heavily influence the quality of life throughout the country. These organizations—for agriculture, health care, disaster relief, and other sectors—have accumulated a wealth of experience with policies and development pathways, but typically they have not been able to retain their experience in ways that allow it to be shared and built upon.

Important lessons learned are not documented and get lost along the way. They want to strengthen their abilities for capturing, learning from, and sharing their knowledge and experiences and reap the benefits. In particular, they typically want to accomplish three goals: 1. Become more effective. With access to critical knowledge when and where needed, they accelerate operational processes and avoid mistakes; 2. Maintain a high level of institutional knowledge even when key staff members depart; and 3. Solve operational problems by continually evaluating and taking to scale what worked in isolated instances and avoiding what didn't.

For knowledge sharing to thrive, organizations need to develop two very different types of capacity—*the enabling environment* and *technical skills*. The enabling environment is created largely by strategic decisions made by management of the organization. The technical skills operationalize effective knowledge capturing and sharing (Janus, (2016).

#### Enabling environment

A positive enabling environment consists of (1) leadership and an organizational culture conducive to

knowledge sharing. The environment builds on strong leadership by senior management that treats knowledge and learning as part of everyday operations and includes attractive recognition mechanisms that reward staff for sharing. It includes (2) effective governance mechanisms for knowledge-and learning-related issues and a set of policies that guide the institution on its journey to becoming a learning organization. The environment is supported by (3) financing and by (4) partnerships, both domestic and international (Janus, (2016).

#### Technical skills

Technical capabilities for effective knowledge operations consist of systematically (5) identifying and capturing the organization's operational experiences and lessons, (6) packaging them into knowledge and learning products, (7) sharing them within and outside the institution, and (8) monitoring and evaluating these efforts (Janus, (2016).

#### 2.4.1 Role of Leadership and Organizational Culture in promoting Knowledge Sharing Environment

Leadership was found to have a positive and significant relationship with knowledge sharing in this study. The role of leadership in improving knowledge sharing culture in organizations was also supported by other studies (Oliver and Kandadi, 2006; Kreiner, 2002; Kerr and Clegg, 2007; Kluge et al., 2001; Marsh and Satyadas, 2003; Welch and Welch, 2005; Nonaka, 1987). Kreiner (2002) found that leaders can influence employees to create the necessary knowledge locally. Kerr and Clegg (2007) also showed in their study that leadership is important to facilitate knowledge sharing within and across boundaries. Actually, leadership at all managerial level is required to develop a desired culture in order to enhance knowledge sharing in organizations (Kluge et al., 2001; Marsh and Satyadas, 2003; Welch and Welch, 2005). Positive initiative should be taken by the top management to give proper work environment through ensuring that the necessary support and proper organizational structure are in place to facilitate knowledge sharing among different functional groups.

Organizational culture can be defined as the shared, basic assumptions that an organization learnt while coping with the environment and solving problems of

external adaptation and internal integration that are taught to new employees as the correct way to solve those problems (Park, Ribiere and Schulte, 2004). An organizational culture that supports knowledge sharing can lead to more effective achievement because instilling a culture of standardizing and maintaining information is critical to achievement (Lai and lee, 2007; McManus and Loughridge, 2002).

Each organization has its own culture, which gradually develops overtime to reflect the organization's identity in two dimensions: visible and invisible (Al-Alawi et al., 2007). The visible dimension of culture is reflected in the espoused values, philosophy and mission of the firm while the invisible dimension lies in the unspoken set of values that guides employees' actions and perceptions in the organization (McDermott and O'Dell, 2001). Al-Alawi et al (2007), found that cultural elements such as trust between co-workers, communication, reward system, and organizational structure are positively related to knowledge sharing in organizations. Issa and Hadda (2008), also found that trust among co-workers is an important cultural element for successful knowledge management. Employees are willing to share knowledge in situations where they can trust the recipient of this knowledge (Connelly and Kelloway, 2002). Some other cultural elements, such as, leadership, organizational, and individual factors are also essential for successful knowledge sharing (Kerr and Clegg, 2007). Previous studies found that leadership and reward system have positive impact on knowledge sharing (Oliver and Kandadi, 2006).

#### **2.4.2 Role of Trust in promoting Knowledge Sharing Environment**

Al-Alawi et al. (2007), found that trust is positively related to knowledge sharing in organizations. Some other authors also found positive relationship between trust and knowledge sharing (Andrews and Delahay, 2000; Levin, 1999; Mayer et al., 1995; Tsai and Ghoshal, 1998; Connelly and Kelloway, 2002; Issa and Haddad, 2008; De Long and Fahey, 2000). Some other authors also claim that the amount of knowledge that flows freely both between the employees and from employees into the firm's main databases is highly influenced by the level of trust that exists

between the firm, its different functions and its employees (De Long and Fahey, 2000).

The willingness of organizational members to share and use tacit knowledge may depend on the extent that co-workers are trusted recipients and sources (Adler, 2002; De Long and Fahey, 2000; Gruber, 2000; Lucas, 2005; McAllister, 1995; Nahapiet and Ghoshal, 1998; Scott, 2000; Tsai and Ghoshal, 1998). For example, Lucas (2005) found that interpersonal trust between co-workers and reputation of co-workers had separate effects on employee experiences in transferring knowledge within an organization. In a related study, Smedlund (2008) has suggested that tacit knowledge transfer (sharing and use); is facilitated by a social network within organizations characterized by ties based both on interpersonal relationships and long-standing working relationships where reciprocity among co-workers is the norm.

To create an environment where trust exists, a worker need to believe that his or her knowledge will not to be misused and that he or she will obtain significant value in the near future coming from reciprocal knowledge-sharing (Mackay 2001). As established by Ribière, Arntzen, and Worasinchai (2007), workers are not likely to share knowledge if they are reluctant to trust each other. For this reason, these individuals need to comprehend the benefits of knowledge-sharing, i.e. assists them in doing their jobs more effectively; helps them in retaining their jobs; facilitates their personal development and career progression; rewards them by getting things done; and gives them personal recognition; hence sharing will without a doubt turn into a reality.

Businesses must create a desire to share as a guiding principle in organizational survival. In doing so, there is still the unresolved issue of 'trust' (Riege 2005), which is arguably one of the most crucial success factors for creating a culture that shares knowledge (Tan, Lim & Ng 2009). Apparently, the 'lack of trust' syndrome, according to Riege (2005), originates from either the trustor or the trustee (knowledge participants). In addition, Riege further exclaimed that lack of trust exists in two separate forms: (1) trustee as a result of misuse knowledge or taking undeserved recognition for it; or (2) accuracy and credibility of knowledge that comes from the trustor. Therefore, the

value and encouragement for knowledge-sharing for organizations does indeed require the creation of a culture of trust (Lengnick-Hall & Lengnick-Hall 2003), in which workers will be more willing to share what they know in a trusting culture (Davenport & Prusak 2000; Fairholm & Fairholm 2000; Faraj & Wasko 2001; Leana & van Buren 1999; Robertson & Hammersley 2000; Settoon & Mossholderb 2002).

McAllister (1995) developed and tested empirically the distinctiveness of two forms of trust: affect-based trust, which is grounded in mutual care and concern between workers; and cognition-based trust, which is grounded in co-worker reliability and competence. Face-to-face interaction often is the primary method for transferring tacit knowledge (Nonaka and Takeuchi, 1995; Spender and Grant, 1996; Sweeney, 1996; Teece, 2000; Teece et al., 1997). The levels of risk and uncertainty that are associated with tacit knowledge transfer are reduced through trusting relationships (Foos et al., 2006). Some transfers of tacit knowledge are formal, resulting from training events, or conferences, while others are more informal, resulting from interdepartmental task forces, informal social networks and employee interactions (Marquardt, 1996). Key to both formal and informal tacit knowledge transfer is the willingness and capacity of individuals to share what they know and to use what they learn (Foos et al., 2006; O'Dell et al., 1998). Barriers may arise that limit the transfer of tacit knowledge (Lucas, 2005). These include coworker willingness to share and/or use tacit knowledge, limited awareness of the tacit knowledge an individual possesses, difficulty in expressing tacit knowledge that is tied to mental and/or physical action, and difficulty of applying context-specific tacit knowledge in other contexts (Argote, 1999; Fahey and Prusak, 1998; Nidumolu et al., 2001; Nonaka and Takeuchi, 1995).

As Nonaka and Takeuchi (1995) found in their study of Japanese companies, personal relationships developed in the context of organizational retreats often resulted in the sharing of tacit knowledge. In a separate study, Foos et al. (2006) found that personal relationships had the greatest impact on the sharing of tacit knowledge between individuals. Foos et al. (2006) also found that interpersonal trust among

project team members was a significant predictor of tacit knowledge transfer.

#### **2.4.3 Role of Communication in promoting Knowledge Sharing Environment**

Communication (interaction between staff) has a positive and significant relationship with knowledge sharing. Al-Alawi et al. (2007) also found a positive relationship between communication and knowledge sharing. Previous studies also found that communication between co-workers is an important aspect in encouraging knowledge sharing (Smith and Rupp, 2002; Davenport and Prusak, 1997). Knowledge management process is about sharing, collaboration and making the best possible use of a strategic resource (Bollinger & Smith, 2001). Knowledge sharing is the process where individuals mutually exchange their implicit and explicit knowledge and jointly create new knowledge (Van den Hooff & de Ridder 2004). Knowledge sharing is also the most important ingredient of innovation (Bhirud et al, 2005). Any knowledge sharing process consists of two parts: donating and collecting. Knowledge donating can be defined as "communicating to others what one's personal intellectual capital", whereas knowledge collecting is defined as "consulting colleagues in order to get them to share their intellectual capital" (Van den Hooff & de Ridder, 2004).

Communication on the other hand, is at the center of any complex, modern organizations (Thomas et al, 2001). It is accepted that communication has effects on individuals' attitudes toward the organization. Organizational communication is considered as the social glue (Greenberg & Baron, 2003). Communication helps create shared meaning, the norms, values and culture of the organization (Wiesenfeld et al, 1998). In a culture where knowledge value is recognized, availability of information, sharing of that information, information flows, IT infrastructure, personal networking, system thinking, leadership, communication climate, problem solving, training and many other factors can be *supportive factors* for successful learning (Warne et al, 2003). Knowledge sharing depends on the quality of conversations, formally or informally (Davenport & Prusack, 1998). Knowledge sharing is a form of communication (Van den Hooff & de Ridder, 2004:

120). Knowledge transferring between individuals in organizations requires communication (Sveiby, 2000). Communication climate includes communicative elements of a work environment, such as judgments about the receptivity of management to employee communication, or the trust on information being disseminated in the organization (Guzley, 1992).

Without an environment that encourages sharing, knowledge sharing expectations fail or fades (DeTienne & Jackson, 2001). It is reasonable to distinguish communication climates as supportive and defensive (Larsen & Folgero, 1993). “open exchange of information, accessibility of coworkers, confirming and cooperative interactions and an overall culture of sharing knowledge can characterize supportive communication climates” (Van den Hooff & de Ridder, 2004). Supportive communication climate was found necessary for the generation, sharing and continual existence of organizational knowledge (Ali et al., 2002). Briefly, communication climate is a crucial variable in explaining knowledge sharing. Supportive communication has positive impact on knowledge donating and knowledge collecting. It’s a central condition for successful knowledge sharing (Van den Hooff & de Ridder, 2004).

## II. CONCLUSION

The study proposes the following seven steps as preliminary blocks in implementing knowledge management in county governments. These include: Identifying the organizational problem that needs to be addressed; secondly, the organizations need to prepare for change. This is through culture change, aligning the recruitment and employee training programs to ensure that the organizations have the right people needed to ensure successful takeoff of knowledge management, and acquire the right technology that will support the knowledge management and sharing platform. The third step is creation of the knowledge management team comprising of departmental heads and specialists from all the key sections of the organization. The fourth step is to perform a knowledge audit and analysis to establish the starting point, based on what is available and what needs to be accomplished. The fifth step will be to define the key features of the solution i.e. ensure that knowledge management technology you acquire will help solve your key business problems. The next step is to

implement the building blocks for knowledge management, and finally to link knowledge to people. For knowledge sharing to thrive, organizations need to develop two very different types of capacity—*the enabling environment* and *technical skills*. The enabling environment is created largely by strategic decisions made by management of the organization. The technical skills operationalize effective knowledge capturing and sharing.

## APPENDIX

Appendices, if needed, appear before the acknowledgment.

## ACKNOWLEDGMENT

The preferred spelling of the word “acknowledgment” in American English is without an “e” after the “g.” Use the singular heading even if you have many acknowledgments.

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