An evaluation of knowledge sharing in South African local government

Samuel Ncoyini
University of Fort Hare, sncoyini@ufh.ac.za

Liezel Cilliers
University of Fort Hare, liezelcilliers@yahoo.com

Follow this and additional works at: http://aisel.aisnet.org/confirm2016

Recommended Citation
http://aisel.aisnet.org/confirm2016/64
Abstract
Knowledge sharing abilities are fundamental to the success of an organisation to meet the needs and demands of the customers. The main purpose of this paper is to investigate the Knowledge Management Systems that can be used to improve the knowledge sharing culture among local government employees. The study used an inductive research approach which included a thorough literature review, and therefore there was no data collected. The study found that there are a number of problems associated with knowledge sharing within South African local government organisations. The organisational culture within municipalities was found not to support the view that an organisation should value the ideas and knowledge that employees create. The study also revealed that some municipalities have many information technology systems in place, but employ several systems in different departments without an enterprise system to integrate these systems. The study therefore recommends that local government must ensure that knowledge sharing practices and initiatives are fully supported and promoted by top management.

Keywords
Knowledge sharing, culture, Knowledge Management Systems, local government

1. Introduction
Local government embodies a significant economic sector where public needs for service delivery is becoming increasingly demanding. In recent years, the local government performance to deliver services to the citizens has been heavily criticised (Wright & Taylor, 2009). Local government today is exposed to an environment that is transformed and influenced by political, economic, technological, and scientific changes (Theriou, Maditinos & Theriou, 2011). The community demands are more challenging as far as speed, quality, and flexibility of services are concerned, putting more emphasis on improving service delivery.

The demand for improved service delivery requires new approaches and attitudes from local government. Deputy President of the Republic of South Africa Cyril Ramaphosa has indicated that lack of service delivery is a major concern for government (Machogo, 2014). Ramaphosa has called for a service delivery model which will foster partnerships with communities and other stakeholders. One of the ways this can be achieved is to focus on continuous improvement by driving innovation and use lessons learnt from their successes and failures (Kitchin, Ovens, & Turpin, 2013). These lessons should be stored and made available from municipal knowledge portals. However, the importance of knowledge in local government strategy is not always prioritised (Shirazi, Mortazavi, & Azad, 2011). Etherington (2013) believes that for local government authorities to re-think service delivery, they need to find better ways to share information assets, business processes and staff expertise with their citizens and business partners.

Pee and Kankanhalli (2015) believe that Knowledge Management (KM) is useful for dealing with “wicked public problems that are unstructured, lack one-off solutions, and require public managers to work, share, apply and create knowledge across many agencies, organizations and citizen groups” (p. 1). KM improves efficiency and service delivery, and leads to greater productivity.
Implementation of knowledge sharing (KS) practices in local government is one of the critical processes that can help to establish learning organisations. These learning organisations can play an important role in the integration of critical knowledge, expert abilities and skills to train other employees to be able to accomplish the organisation’s complex and innovative work (Zhang, Vogel, & Zhou, 2012). However, local government employees tend to be individualistic and autonomous by choosing not to share their knowledge with others (Tan & Noor, 2013). KS improves customer response times, saves costs through process improvements, reduces work load, staff retention, and further improves innovations and developments (Van der Meer, 2014).

In order to promote KS, Knowledge Management Systems (KMS) are described as technology-supported information systems that enable organisations in distributing, documenting and transferring tacit and explicit knowledge amongst employees to increase effectiveness (Wang, Noe, & Wang, 2014). The development of KMS in South African local government can boost the effectiveness in managing knowledge. KMS tools facilitate and provide an enabling platform for local government to capture, share and retain knowledge (Chigada, 2014).

The main research question for this study is: How can knowledge management systems be used to improve the knowledge sharing culture among local government employees in South Africa? The main purpose of this paper is to investigate the KMSs that can be used to improve the knowledge sharing culture among local government employees.

This paper is structured as follows: First, a literature review is provided which highlights the importance of KS in local government organisations, importance of organisational culture in KS, and the KMSs that can improve KS culture. This is followed by a discussion of the research method employed in this study. Following the method, the Critical Success Factors (CSFs) are discussed as the solution to the research problem.

2. Literature Review

2.1 Knowledge Management

KM is a multifaceted socio-technical system that integrates many forms of knowledge generation, storage, sharing and application (Alexandre, Martin, Wei, Tim, & Reed, 2006). Specific features and functionality of KMS are always based on assumptions characterised by cultural backgrounds of their developers and managers. However, if these systems are used by employees with different national and cultural backgrounds to those of developers, features anticipated to support KS may actually constrain these processes (Alexandre et al., 2006). The socio-technical theory, first coined by Trist and Bramforth in the 1950s, describes the social and technical dimensions that affect employees’ intentions to share knowledge within local government organisations (Chai & Kim, 2012).

KM involves strategies that are developed by organisations to capture, manage and control their intellectual capital resources (Ramdhania, 2012). There are four key processes in KM: capturing, storing, sharing, and using knowledge (Shanshan, 2013). These processes, illustrated in Figure 1, are used to make knowledge from the individual employees available to the organisation. From the four processes, KS is considered the major barrier to the transformation of individual knowledge into organisational knowledge.

2.2 Importance of knowledge sharing in local government

Knowledge sharing is where knowledge is disseminated throughout the organisation, providing job-related information and expertise to support and collaborate with other employees. KS is defined as “the process where individuals mutually exchange their knowledge and jointly create new knowledge” (Perik, 2014, p. 12). Dube and Ngulube (2012) see KS as a dual process and a social interaction activity where employees provide guidance, advice and share ideas with other employees who are
learning by observation, listening and asking. KS also refers to a process where know-how and task information are provided to help other employees solve problems together, development of new ideas, and the implementation of procedures and policies (Wang & Noe, 2010).

Figure 1: KM components and process (Al-Khoury, 2014)

KS can contribute to improved employee performance that translates into improved productivity levels and quality of work for local government (Van der Meer, 2014). The networks that develop among local government employees making use of KS have also been shown to reduce staff turnover. Recognition and promotion for improved work performance motivates employees to retain the knowledge networks that enabled them to improve their performance. This helps to reduce the likelihood of local government employees leaving for other organisations. If municipalities share knowledge with external organisations, they can develop their own knowledge bases and thus improve innovation.

KS is believed to be a type of social dealing among employees due to the fact that effective KS is individual-based (Ling, 2011). Therefore, it is crucial for local government organisations to capture the minds, thoughts and behaviour of their employees, considering that KS does indeed require a culture that facilitates employees to share knowledge as part of their daily work activities. KS practices and applicable infrastructure are key elements to the success of KM initiatives, but culture is very important (Reid, Bardzki, & McNamee, 2004). Ho and Madden-Hallett (2011) also believe that creating a culture that values creativity, continuous improvement, and the sharing of ideas is necessary for KM initiatives to succeed. According to SALGA (2015), in an organisational structure where there is no culture of sharing, any introduction of KM is hopeless.

2.3 Factors that influence local government employees’ intentions to share knowledge

There are a number of factors affecting KS in local government. The local government employees’ willingness to contribute to KS practices cannot be taken lightly. As knowledge is deeply-rooted in human minds, it is the most powerful asset of employees. Employees must be willing to share their knowledge and put an effort to codify their tacit knowledge into an understandable form of knowledge (Ramdhania, 2012). Awang, Kareem, and Ismai (2014) perceive knowledge and power, lack of job security, and inequalities of status as potential knowledge barriers in organisations. Employees who feel threatened by competition from their colleagues also reduce their intentions to share knowledge. Organisational factors have a positive influence on the effectiveness of KS between local government employees.
2.3.1 Top management support
The lack of top management support in local government affects the employees’ attitudes towards KS. Shanshan (2013) believes that if employees have top management support, their attitudes toward KS will be more positive and they will feel more confident to share knowledge. Therefore, top management support has a positive influence on attitude towards KS. In assessing the readiness for the application of KM in local governments, Gaffoor (2008) interviewed the Information and Communication Technology (ICT) managers of Stellenbosch Municipality. In terms of awareness and culture pertaining to KM in the ICT Department, he discovered that senior managers were not familiar with the concept of KM.

2.3.2 Organisational culture
Organisational culture plays a significant role in facilitating learning, sharing and creation of knowledge. Cultural differences within an organisation have a negative impact on knowledge sharing. A study by Dikotla, Mahlatji, and Makgahlela (2014) provides a relevant example using Limpopo Province individuals from different ethnic groups who are employed in the government sector. These employees found it impossible to share knowledge they possess due to cultural differences. Dikotla et al. (2014) also use a Northern Sotho expression “kgomo ga e ntšhe boloko ka moka”, meaning one should not or cannot share with others his or her entire knowledge. This is related to what Mothamaha and Govender (2014) found among the City of Johannesburg employees where older generation employees are still reluctant to share their knowledge, subscribing to the notion that “knowledge is power”.

2.3.3 Organisational Structure
The limited input of community knowledge has been a concern in municipalities. In Durban’s eThekwini Municipality, knowledge is fed directly to the city level by councillors (Baud et al., 2013). Knowledge input from poor communities in Durban is inadequate due to measures followed in public participation processes, which excludes those without access to public media (Baud, Scott, Pfeffer, Sydenstricker-Neto, & Denis, 2015).

2.4 Knowledge management systems
Information technologies that enable local government organisations to manage their knowledge efficiently are called Knowledge Management Systems (Assegaff & Hussin, 2012). KMS “refers to a class of systems developed to support the processes of knowledge creation, storage/retrieval, transfer and application” (Greenman, 2006, p. 79). KMSs are “technology-supported information systems that help document, distribute, and transfer between employees’ explicit and tacit knowledge to increase organisational effectiveness” (Wang et al., 2014, p. 979).

The Stellenbosch Municipality ICT infrastructure was found not to be supporting knowledge sharing and management within the Municipality. Although the Municipality has various information systems in place, there was no single database which served as a central information repository (Gaffoor & Cloete, 2010; Gaffoor, 2008). Stellenbosch Municipality also did not use innovative information systems such as expert systems, Decision Support Systems (DSS), and Management Information Systems (MIS).

The results of a study by Averweg (2002) on eThekwini Municipality suggested that the management of knowledge and KS using intranet was limited. The study concluded that if eThekwini Municipality’s intellectual capital is aligned to the organisational strategy, the intranet can provide a sound framework to facilitate the management of knowledge and KS. For local government, the development of KMS can boost the effectiveness in managing knowledge.

Web portals are used for KS as they provide links to other sites and offer opportunities to search other pieces of information (Canzano & Grimaldi, 2012). According to Becerra-Fernandez and Sabherwal (2010), systems that facilitate knowledge exchange are groupware; web-based access to data and databases, and repositories that include best practice databases and lessons learned systems.
2.4.1 Challenges within South African local government
Several studies revealed that there are knowledge sharing problems within South African local government organisations. These problems are presented in Table 1 below, making use of the two subsystems of the socio-technical approach. Socio-technical theory defines an organisation as a duality of interrelated social and technological subsystems that function as a whole within its operating environment. This theory is used to emphasise the interrelationship between social factors and technological factors in understanding an organisation. According to the socio-technical theory, KS as a strategy enables the formulation of knowledge and practices around operational environments and organisational cultures to improve competences and develop skills of employees.

Table 1: Socio-technical summary of challenges

<table>
<thead>
<tr>
<th>Social System</th>
<th>Technical System</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Structure</strong></td>
<td><strong>Technology</strong></td>
</tr>
<tr>
<td>• Existence of silos within municipal departments (Ramsey &amp; Barkhuizen, 2011)</td>
<td>• Little knowledge and understanding of IT sector (Kaselowski, von Solms, &amp; von Solms, 2010)</td>
</tr>
<tr>
<td>• Culture discourages creativity (Ondari-Okemwa &amp; Smith, 2009)</td>
<td>• Lack of integrated IT infrastructures which make them redundant and inconsistent in generating data (Gaffoor &amp; Cloete, 2010)</td>
</tr>
<tr>
<td>• Lack of knowledge sharing due to cultural differences (Dikotla et al., 2014)</td>
<td>• Lack of technical support due to skill shortages or the lack of skilled human resources within municipalities’ IT departments (Baud et al., 2015)</td>
</tr>
<tr>
<td>• Acceptance of knowledge sharing concept by leadership (Gaffoor, 2008)</td>
<td>• The intranet does not appear to be effective as a KS structure (Averweg, 2012)</td>
</tr>
<tr>
<td>• Top-down, hierarchical organisational structures that are not the most conducive to KM efforts (Gaffoor &amp; Cloete, 2010)</td>
<td></td>
</tr>
<tr>
<td>• Structures that restrain the horizontal communication flows</td>
<td></td>
</tr>
<tr>
<td><strong>People</strong></td>
<td><strong>Tasks</strong></td>
</tr>
<tr>
<td>• Reluctance to share knowledge due to job security (Mothamaha &amp; Govender, 2014)</td>
<td>• Lack of integration in the systems hampers information sharing (Gaffoor &amp; Cloete, 2010)</td>
</tr>
<tr>
<td>• Competition among employees reduces knowledge sharing intentions</td>
<td>• Access to information resources is limited (Baud et al., 2013)</td>
</tr>
<tr>
<td>• Lack of commitment in sharing organisational knowledge</td>
<td>• Existence of silos within departments (Ramsey &amp; Barkhuizen, 2011)</td>
</tr>
<tr>
<td>• Cultural differences among employees affect knowledge sharing (Dikotla et al., 2014)</td>
<td></td>
</tr>
</tbody>
</table>

3. Methodology
The research method used for this study is secondary research which was done by reviewing literature from different authors. The literature was searched from the library’s different electronic databases accessible through the library website. The philosophy used in this qualitative study is interpretivism. Inductive reasoning was used to analyse the literature. The socio-technical perspective was used in this study as a theoretical framework to explain social and technical dimensions that affect employees’ intentions to share knowledge within the organisation. The scope of the study only included local government employees in South Africa.

4. Discussion
The study found that there are a number of problems associated with KS within South African local government organisations. The organisational culture within municipalities was found not to support the view that an organisation should value the ideas and knowledge that employees create. In other
municipalities, the older employees were found reluctant to share their knowledge as they subscribe to the notion that knowledge is power. The study also revealed that some municipalities have many information technology systems in place, but employ several systems in different departments without a single system traversing the entire municipality. Due to lack of integration in the systems, information sharing is hindered and access to information resources is inadequate.

4.1 CSFs for the improvement of KS culture
A review of literature in the previous sections showed that there are a number of CSFs that influence the success of KS initiatives within local government organisations. CSFs are the practices and activities that organisations should address to ensure successful implementation of KS. If these practices already exist within the organisation, they would need to be nurtured. If they are not in place, they would need to be developed (Crnjar & Dlacic, 2014). The CSFs discussed below are critical in ensuring that the environment and culture within local government supports KS.

4.1.1 CSF 1: Develop a culture to promote knowledge sharing
A collaborative culture is an essential condition for KS to occur between individuals and groups. This is due to the fact that KS requires employees to come together to interact, exchange ideas and share knowledge with one another (Wong, 2005). South African local government organisations need to foster an innovative culture in which employees are continually stimulated to generate new ideas, solutions and knowledge. KMSs that support collaboration include intranet infrastructures which offer basic functionality for communication, exchange, storage, search, as well as retrieval of data and documents. Groupware systems enhance collaboration by supporting discussions, time management, meetings and creative workshops.

4.1.2 CSF 2: Support and promotion of KS concept by top management
Top management support is one of the critical factors for the implementation of knowledge sharing. Top management in local government organisations can play an important role by ensuring that KS is successfully implemented. Managers should demonstrate a willingness to offer and freely share their knowledge with other employees, and search for and learn new knowledge and ideas (Wong, 2005). Therefore, it is the responsibility of municipal top managers to support KS activities and projects by ensuring that sufficient resources are allocated in terms of money to acquire IT infrastructure, skilled labour and time for using KS platforms (Ansari, Youshanlouei, & Mood, 2012).

4.1.3 CSF 3: Alignment of knowledge management with organisational strategy
Local government KS activities are exposed to many challenges. These activities need to be directed toward real efforts that are based on clear organisational strategies (Ansari et al., 2012). Hence, for South African local government organisations to succeed in their KS efforts, they need to form official KM strategies throughout the organisation. KM activities must be aligned with organisational strategy such that the top management make and share a vision on KS and continually plan on realising the agreed upon KS objectives.

4.1.4 CSF 4: Ensure flexible and informal organisational structures to facilitate KS
Local government organisational structures must be flexible enough to increase distribution of knowledge and cooperation from traditional borders of the organisation towards knowledge creative borders (Ansari et al., 2012). Municipal managers must recognise the shortcomings of bureaucratic structures that they slow the processes and limit the information flow. The reporting procedures in current structures consume an excessive amount of time in order for knowledge to filter through every level of the organisation. Knowledge sharing succeeds with structures that support ease of information flow with fewer boundaries between divisions.

4.1.5 CSF 5: Motivate employees to contribute knowledge
Motivation is one of the factors that affect employees’ intentions to share knowledge. Local government organisations’ most valuable intellectual resources are entrenched in the minds of their employees; KS can be achieved only through passion that stimulates the deepest parts of the employee’s minds (Egbu, Wood, & Egbu, 2010). Therefore, if local government employees are not
motivated to share their knowledge, there is no amount of investment, infrastructure and technological intervention that can make KS effective.

4.1.6 CSF 6: Ensure availability of an effective information technology infrastructure
Local government organisations should invest in comprehensive technological infrastructure such as communication systems and information technology for the purpose of KS. Technologies such as chat rooms, telephone, and video conference can be used to transfer tacit knowledge (Sedighi & Zand, 2012). Factors such as ease of use, simplicity of technology, connection with knowledge content and standardization of a knowledge structure, and adaptability to the needs of users have to be considered when municipalities developing KMSs (Margilaj & Bello, 2015). The key for local government organisations is to understand how technology is developed and how is it aligned to organisational strategy and knowledge processes. This can play a critical role in managing and supporting local governments’ KS activities.

4.1.7 CSF 7: Provide training for all employees
Training is critical for effective KS among local government employees. Through training, employees will have a better understanding of the concept of KS. Local government employees need to be educated in using KMS and any other technological tool that can be useful in sharing of knowledge. This will be crucial in ensuring that employees use the full potential and capabilities offered by KMS (Wong, 2005). Employees should be trained to understand their roles in performing knowledge-related responsibilities. Training will equip employees with skills that foster innovation, creativity and KS.

Table 2 analyses the critical success factors, showing the link between them and the four quadrants of the socio-technical theory.

<table>
<thead>
<tr>
<th>Critical Success Factors</th>
<th>Socio-technical Theory’s Four Quadrants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Structure</td>
</tr>
<tr>
<td>CSF 1</td>
<td>X</td>
</tr>
<tr>
<td>CSF 2</td>
<td></td>
</tr>
<tr>
<td>CSF 3</td>
<td>X</td>
</tr>
<tr>
<td>CSF 4</td>
<td>X</td>
</tr>
<tr>
<td>CSF 5</td>
<td></td>
</tr>
<tr>
<td>CSF 6</td>
<td></td>
</tr>
<tr>
<td>CSF 7</td>
<td>X</td>
</tr>
</tbody>
</table>

5. Conclusion

The success of KS initiatives can be influenced by CSFs. CSFs are the practices and activities that local government organisations must address to ensure that KS is successfully implemented. If these practices already exist within the municipality, would need to be nurtured. If they are not in place, they would need to be developed. Therefore, to solve the research problem, KS problems that were identified in literature were organised making use of the two sub-systems of the socio-technical approach.

The CSFs provide solutions to the identified problems, advising how existing KS practices can be supported and how new initiatives can be developed. The study advises that a culture that promotes KS within South African local government organisations should be developed. Employees should be encouraged to collaborate. KM systems that will ensure that this collaboration is realised are intranets and groupware systems.

The study, through CSFs, further advises that local government organisations must ensure that KS practices and initiatives are fully supported and promoted by the top management. This will ensure that
sufficient resources to support KS are allocated. To solve the KS problems, KM must be aligned with organisational strategy. Official KM strategies must be developed and aligned to organisational strategies to ensure that top management make and share a vision on KS and continually plan on realising the agreed upon KS objectives.

The study used an inductive research approach which included a thorough literature review, and therefore there were no data collected. During literature review it was evident that scholarly research on KS culture within the local government context was lacking on both local and international level. Therefore, it will be worthwhile for future research to apply and test questionnaires in different local government organisations. The results could be used to identify trends and differences in KS practices. The scope of the study only included local government employees in South Africa. It will be valuable for future research to be conducted on the holistic South African government sector, as that will give a diverse view of the true state of the KS culture in the South African workplace.

References


Perik, H. T. M. (2014). Research into factors that influence the intention to share knowledge on a knowledge community platform within youth care: the case of “Jeugdkwartier.” University of Twente.

Ramdhania, Y. P. (2012). *What makes employee willing to share knowledge via Intranet?* University of Twente.

Ramsey, M., & Barkhuizen, N. (2011). Organisational design elements and competencies for


