



Knowledge Management (KM) in the Local Government Sector

Knowledge emerges only through the restless, impatient, continuing, hopeful, inquiry human beings pursue in this world – Paulo Freire

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EXECUTIVE SUMMARY

Although several studies exist on knowledge management (KM) in South Africa, KM has not been studied in-depth and very little empirical research exists on how to effectively implement KM in the South African local government sector. The literature review presented provides a comprehensive broad overview of KM and trace the evolution and historical development of KM and identified the need to acknowledge and consider indigenous knowledge systems.

The concept knowledge is considered as a critical strategic attribute and resource of the organization. Successful organizations have since learned to treat employees as a strategic resource in which they invest to produce more knowledge to increase their competitive advantage (Drucker, 1998, as cited in Ahmed, 2009, Gorzelany-Dziadkowiec, 2008). The knowledge hierarchy is defined as data, information, knowledge and wisdom. The boundaries between wisdom, knowledge, information and data were clarified and it is possible to consider the different forms in which knowledge exists and how it can be accessed, shared, and combined. A distinction is made between different types of knowledge, making a distinction between tacit and implicit knowledge and explicit and embedded knowledge (Barbier and Tenengeh, 2022).

How organisations then manage knowledge and the knowledge of employees is considered. Knowledge management can be considered a rapidly developing discipline and considered the most creative and innovative management concept to have emerged over the last quarter of a century. Knowledge management is understood and interpreted on the individual and organisational levels as a dynamic non-linear process that includes concepts such as retaining, acquiring, creating, applying, structuring and sharing (ubuntu) knowledge. It is built on the belief that the most valuable resource of organizations is the knowledge of its people, hence KM has two main objectives - to improve efficiency and effectiveness and to encourage innovation that leads to increased organisational performance. Drucker (1959) defined employees as knowledge workers – those individuals within organisations with high levels of competence who have the ability to apply their competencies to solve complex organisational problems, create new products or services. The process of managing knowledge workers involves guiding and integrating the autonomous and interconnected work of highly competent individuals who require freedom and flexibility to be effective with ongoing organisational opportunities for learning and development. Managing and motivating knowledge workers (who either share or

hoard knowledge) can be considered the essence of knowledge management (Armstrong, 2006).

A distinction is made between records management (RM) and KM and how these two concepts are integrated. It is concluded that KM (organisational learning, innovation and improvement) and RM (trustworthiness, compliance and organisational integrity) are considered two professionally independent fields of study, focussing on two different complimentary outcomes that has as a goal to standardize knowledge and the preservation of knowledge in organisations.

Several theoretical frameworks exist to understand and interpret KM. Amongst the commonly used frameworks described in this research report are the resource based view, knowledge management systems framework, knowledge conversion model, social capital perspective and the knowledge management maturity model. It is concluded that KM systems enable municipalities to muster organizational knowledge by systematically capturing and organising the vast wealth of knowledge, experience, and expertise of staff, clients, stakeholders, beneficiaries, and partners, making the knowledge readily accessible.

The link between KM and human resource management is presented. Organizations with a high staff turnover face the risk that critical organizational knowledge may be lost in the event of employees retiring or exploring other opportunities beyond the organizations. Hence organizations should ideally implement KM strategies that foster learning, encourage collaboration and sharing by promoting teamwork and allow employees ample time to learn and reflect on their knowledge (Skyrme, 1999). The six critical success factors (CSF) for KM implementation were identified. For KM to be successful, requires competent and experienced management/leadership throughout the organization that appreciates the value and application of knowledge as a competitive advantage (Hajric, 2018). Secondly organizational culture in the context of both KM and organizational learning represents both the significance and perceived advantages of organizational knowledge and its impact on employees' willingness to share their knowledge to achieve optimal organizational performance (Gaffoor and Cloete, 2010). Thirdly structure refers to the way posts are organised in an organization to ensure optimal organizational performance. Fourthly, organizational processes are those activities or initiatives that support the organization to achieve its overall KM goals and ultimately benefit the institution as a whole (SALGA, 2018). Fifthly, technology is the systems, tools and technologies that fit the organization's requirements and can be considered central to the maintenance and

organization of the KM efforts of an organization. Finally organizational politics can be considered the long-term support to implement and sustain change initiatives and organizational resource allocation. This involves all organizational functions, which may be costly to implement (both from the perspective of time and money) and which often do not have an immediate viable return on investment. Politics in essence involves the use of resources in the course of social existence (Heywood, 2013; Hajric, 2018).

Organizations should be mindful of the critical success factors to implement KM, effectively and efficiently. The variety of options used to capture, store and exploit knowledge is known as KM tools. This list is by no means exhaustive but offers organizations the relevant tools to introduce KM in their organizations. Some examples of KM tools are, brainstorming, case studies and exit interviews (South African Cities Network, 2013; SALGA, 2018; Barbier and Tenengeh 2022). The most widely studied forms of explicit knowledge-sharing techniques in the KM literature are expertise locator systems and lessons learned. On the other hand communities of practice have received the most attention as an implicit knowledge-sharing method (Virkus, 2011).

The research report then contextualise KM through a discussion of the South African KM framework. The National KM Strategy Framework (2019) with the four KM pillars; culture, people, content, and process is identified are discussed. The national KM management strategy framework can be considered the functional and structural components that aim to institutionalise KM management in the South African government (Barbier, 2022), specifically in local government.

The mandate of local government and the internal actors (senior, middle and junior managers) and the task distribution in the municipal context is advanced. The Municipal staff regulations and the implication for KM is introduced and concluded that the functional human resource development role expected to be played by managers are critical for KM implementation in the municipal sector. However, municipalities face a plethora of capacity challenges that is concentrated on ten problems viz; financial resources, human resources, administrative leadership, the political/admin interface, financial management capacity, municipal service delivery, institutional environment, infrastructure and work tools, community engagement and the implementation of HRD interventions. The problem of implementation is KM in local government is highlighted as well as the benefits. An effective KM system can thus improve accountability through effective management of information to make informed decisions, increase levels of collaboration internally and externally, improve partnerships with stakeholders, capture the knowledge of retiring

employees and retain the institutional memory of the municipality. This leads to increase efficiency, better responsiveness, enhanced decision-making, greater accountability, reduced costs, motivated staff, good governance and improved service delivery (SALGA, 2018). The literature review concludes by identifying the key stakeholders to realise the KM in the local government sector such as SALGA and COGTA and implementation agencies such as the South African cities network and the Municipal Institute of Learning.

In Section 3 of the report, the theory and practice collide. An investigation into the challenges of implementing KM in the local government sector is embarked on. In total, 25 municipal institutions were sampled (306 questionnaires completed and 16 focus groups) with a randomly selected sample of senior and middle managers across the 9 provinces.

The research results paint a bleak picture in terms of the understanding, application, and integration of KM in the local government sector. This was highlighted by the quantitative results (questionnaire) and confirmed in the qualitative results (focus group discussions and discussions with key informants). This study identified the critical success factors for KM to succeed in the literature but the local government sector suffers from an absence of such as highlighted in the empirical evidence.

The study then proceed to advance ten implementation recommendations to ensure successful implementation in the South African local government sector. It is recommended that the LGSETA as the authority for skills development facilitate the knowledge and knowledge management revolution through mobilizing all available resources and working in concert with the primary identified strategic partners (South African Local Government Association and the Department Cooperative Governance and Traditional Affairs) and with implementation partners such as the Municipal Institute of Learning to develop a local government KM blueprint.

Municipalities and municipal entities wishing to embark on this KM change management journey should work through the recommended implementation framework (Governance5iQ) adapted from Barber (2015) that is applicable on the micro (municipal) and macro (strategic) levels. The implementation framework is based on 5 questions. (1) Why we do what we do? (vision) (2) How is it being done? (mission) (3) How will we know at any given moment that we are on track? (monitoring and evaluation) (4) What happen if we not on track? (consequence management) (5) How do we lead and learn? (knowledge management).

Knowledge Management and the knowledge worker as coined by Drucker, 1959 (Armstrong, 2006), stand at the centre of all organisational activities and the successful implementation will have as an outcome, strong institutions as per sustainable development goal 16 (Reddy, 2016) . The proposed recommendations to achieve KM in the local government sector have far reaching consequences implications for (induvial) development and capacity building (institutional level) within the local government sector. It is concluded that the effective implementation of knowledge management in the South African local government sector will result in the institutionalization of the organisational processes to ensure that evidence informed policy and programs decisions are made. This will ensure that KM is mainstreamed and will lead to good governance outcomes (ethical culture, good performance, effective controls, and legitimacy) that is championed by KM ambassadors (politicians).

KEY DEFINITIONS

Below is the list of knowledge management definitions as obtained from the South African Local Government Association (SALGA, 2018:71-73) in the Knowledge Management Toolkit.

After Action Review (AAR) is a systematic process to extract the learning from an event or activity. The process addresses the questions: What should have happened? What actually happened? Why did it happen? What lessons are there for the future? How are these lessons built back into the system?

Balanced Scorecard is a performance measurement system that incorporates a balanced set of measures, both financial and non-financial. It adds customer, internal processes and learning indicators to financial ones to provide a more balanced view.

Benchmarking is a systematic process for comparing the performance of an activity or process across a range of organizations or departments.

Best Practice is the distillation of accumulated wisdom about the most effective way to carry out a business activity or process. Since 'best' is highly subjective and context-dependent, as well as implying that no further improvements are possible, many people now prefer the terms good practice or better practice.

Blog (originally Web log) is a string of thoughts of an individual shown in chronological sequence on a Web page, often with hyperlinks to sources that have stimulated their thinking.

Case Study is the analysis of an individual unit (e.g., person, group, event).

Chief Knowledge Officer (CKO) is a senior executive responsible for an organization's knowledge agenda, often at board level.

Classification is a critical process in the knowledge-sharing cycle. Documents are classified and indexed according to their core terms and concepts. Increasingly computer systems provide a level of automation of this process, using natural language or statistical methods.

Community of Interest (CoI) is a group of people who share knowledge and experience around a common interest. A CoI is driven more by learning and less by outcomes than a Community of Practice.

Community of Practice (CoP) is a group of people who share and develop their knowledge in pursuit of a common purpose or task, even though they do not necessarily work in the same department or organization.

Concept Mapping is a visual representation of core concepts showing their relationships. A typical concept map comprises a set of nodes or bubbles (the concepts) with arrowed links between them (the causal relationships).

Content Analysis is the analysis of a body of content (text) into its key concepts. As well as a method of discerning trends, this technique generates keywords and thesaurus terms to improve subsequent text search and retrieval. The latter result is increasingly achieved through the use of automated classification systems.

Content Management System (CMS) is a computer system that makes it easier to develop enterprise portals and websites, by separating content management from its presentation (display). Blocks of content are tagged with metadata and other attributes and held in a content database. Web pages are generated by accessing content from the database and inserting it into the relevant 'placeholders' on Web page templates.

Customer Capital is a measure of the intangible value that accrues through customer relationships, including the size of customer bases, knowledge of customers and their needs, and related intellectual property such as brands. Add a reference.

Customer Relationship Management (CRM) is an approach that gathers and uses knowledge of customers' buying habits and preferences to strengthen the ongoing relationship for mutual benefit. Customer knowledge is the most critical to manage in many KM surveys.

Data Mining is a computer technique for extracting meaningful knowledge from masses of data. Using artificial intelligence methods, it identifies random patterns by considering the interaction of many more variables than are achievable by humans.

Directory of Experts a searchable database of personnel and their skills and project experience.

Discussion List is a mechanism used to share information and knowledge using a single email address to communicate to all members of a given list. Typically, all messages generated during one day are grouped and sent as a single email in a 'digest'.

Document Management System is a computer-based system for storing and retrieving documents in various formats, including scanned images of paper documents. Many provide version control and audit trails of changes and usage. The distinctions between document management, content management and record management systems are increasingly blurring.

Exit Interview is a final formal meeting between an employee who is leaving and the employer to find reasons for leaving and views on the organization.

Expertise Directory is a database of personnel and their skills that allows users to search for people with specific skills or relevant project experience. Often referred to as 'Yellow Pages.'

Expertise Profiling is the identification and classification of personal knowledge and skills. This may be done through the manual completion of data forms or by computer systems that infer people's expertise according to what they write in emails and documents. The output of the process may be an expertise directory, or a database used in automated question-and-answer systems.

Explicit Knowledge is the knowledge that is codified and articulated. It appears in the form of documents, procedures, and databases.

The extranet is a portion of an organization's intranet that is opened up for external Internet access on a selective basis, e.g., for customers to access specific areas following the input of a password.

Frequently Asked Questions (FAQs) is a list of questions most commonly asked or anticipated by website or intranet users, together with their answers. Information providers use this technique to minimise the number of recurring queries and calls.

Good Practice is the distillation of accumulated wisdom about the most effective way to carry out a business activity or process.

Groupware is a set of computer software tools that support collaborative working. Lotus Notes was the archetypal groupware software, but many groupware facilities are now provided on the Internet, e.g., bulletin boards, discussion forums, and instant messaging.

Human Capital is individuals' competencies, know-how, capabilities, and experience. Human Capital is one of the three main components of Intellectual Capital. The others are Structural Capital and Customer Capital.

Information Resources Management (IRM) is managing information as an organizational resource. It includes identifying information, classifying it, and valuing and exploiting it.

Instant Messaging is an Internet or intranet facility in which users type messages into a window that other participants in that chat room or area simultaneously view. While commonly associated with informal social groups, the tool is a helpful adjunct for synchronous knowledge exchange in a corporate context, for example, as a way of interaction during a webinar.

Intangible Assets are assets that are not physical or tangible. They are, therefore, more challenging to identify and count as discrete entities. Knowledge is one type of intangible asset.

Intellectual Capital (IC) is a company's intangible assets not generally valued on the balance sheet. It is roughly—but not precisely—the difference between a company's market and book value. It is often divided into the categories of human capital, customer capital, and structural capital. Some schemes separate intellectual property, while others use the broader term relationship capital instead of customer capital.

Intellectual Property (IP) is the intellectual capital that is identifiable and protectable in law. It includes copyrights, patents, designs, and trademarks.

Intranet is an internal computer network that runs the Internet protocol (TCP/ IP). Most intranets have a computer 'gateway' to the broader (external) Internet and deploy a 'firewall' to prevent unauthorised access to a company's information.

KM Assessment is the assessment of the quality and capabilities of KM within an organization. A typical assessment tool will have a set of questions against which employees score the level of actual and desired capabilities.

KM Maturity is the level of adoption of KM within an organization. This is gauged by referencing a KM maturity model that looks at stages of maturity from ad-hoc to fully embedded and integrated into the organization's core activities.

Knowledge Analyst is a person or business that interprets the needs of a knowledge seeker and finds the most suitable sources.

Knowledge Archaeology is the process of rediscovering an organization's historical knowledge that has become lost.

Knowledge Asset is an identifiable piece of knowledge with some intrinsic or extrinsic value.

Knowledge Audit is the systematic analysis of an organization's information and knowledge entities and their key attributes, such as ownership, usage, and flows, mapped against a user and organizational knowledge needs, information audit, knowledge audit, knowledge inventory and knowledge mapping.

Knowledge Base is a computer-held database that records knowledge appropriately for later extraction. It may take various forms depending on whether it supports an expert system or contains documents and textual information for human retrieval.

Knowledge Broker is an intermediary that connects knowledge seekers to knowledge providers. It may involve brokering a deal and retaining anonymity between buyer and seller until a suitable negotiation stage. Some overlap with a knowledge analyst.

Knowledge Business is a business whose primary outputs are knowledge products and services.

Knowledge Café is an informal meeting area for the exchange of knowledge. Cafés can be virtual meeting rooms as well as real ones.

Knowledge Capital is the capital of an organization that is not physical or financial.

Knowledge Centre is a central function for managing knowledge resources. Often developed around a corporate library, a typical knowledge centre will manage both physical and virtual resources – documents, databases, intranet content, and expertise directories

Knowledge Codification is the process of articulating knowledge in a more structured way. It typically involves eliciting tacit knowledge from an expert, making it explicit and putting it into a template and format that aids dissemination and understanding. High levels of codification are found in computer software and mathematical formulae.

Knowledge Commercialisation is the process of creating tradable goods and services from a body of knowledge.

Knowledge Cycle is a sequence of core knowledge processes that produce new knowledge.

Knowledge-Economy is an economy in which knowledge is one of the main factors of production and constitutes the major component of economic output. This may occur directly through knowledge products and services or indirectly where knowledge is an added-value part of other products and services.

Knowledge-based Product is a product in which knowledge is a significant component. Contrast with a knowledge product, which is wholly knowledge.

Knowledge Management is understood and interpreted on the individual and organisational level. It is dynamic non-linear that includes processes such as retaining, acquiring, creating, applying, structuring and sharing (ubuntu) knowledge.

Knowledge Workers - Employees in organisations with high levels of competence who have the ability to apply their competencies to solve complex organisational problems, create new products or services (Armstrong,2006)

Taxonomy is a system of classification. A typical taxonomy is a hierarchy of terms (nodes), where lower-level terms are more specific instances of higher-level ones. Taxonomies in which a term can appear in more than one branch are called 'poly hierarchical.

Thesaurus is a controlled vocabulary of terms for a corpus of information. An extension of a taxonomy that includes rules on vocabulary usage for document classification.

Video conferencing is communication over an electronic network using video. Systems range from desktop units on Personal Computers to dedicated systems that use cameras and monitors in a conference room setting.

A virtual organization is an organization whose participants are geographically separated but work together through online communications. Less commonly, the term refers to a temporary organization or network that is created for a specific purpose but whose members remain independent.

Webinar (Online seminar) is a presentation delivered over the Web using videoconferencing.

ACRONYMS

CKO	Chief Knowledge Officer
Col	Community of Interest
CoP	Community of Practice
CRM	Customer Relationship Management
CSF	Critical success factor
DPME	Department of Planning, Monitoring and Evaluation
DPSA	Department of Public Service and Administration
ECM	Enterprise Content Management
FAQs	Frequently Asked Questions
HRD	Human resource development
IC	Intellectual Capital
IP	Intellectual Property
IRM	Information Resources Management
KM	Knowledge Management
KMRG	Knowledge Management Reference Group
KMS	Knowledge Management System
KMSA	Knowledge Management South Africa
OD	Organization Design
RPL	Recognition of prior learning
SACN	South African Cities Network

SALGA South African Local Government Association

SDGs Sustainable development goals

VUCA Volatile, uncertain, complex, and ambiguous

SECTION 1: INTRODUCTION AND BACKGROUND

1 INTRODUCTION

As mandated by the Skills Development Act (No. 97 of 1998), the Local Government Sector Education and Training Authority (LGSETA) has a role and responsibility to facilitate and promote skills development of the workforce within and across the Local Government sector. This mandate includes the development and implementation of the sector skills plan as well as approving workplace skills plans. The University of the Free State was requested to produce a research report on knowledge management (KM) in local government sector. This is presented in two sections. In section A, a literature review will be conducted that is followed with a presentation of the research methodology, research findings and succinct recommendations for implementation in Section B.

The primary objective of the research is to provide an overview of knowledge management in the local government sector. The goal is to present a broad overview of knowledge management through an analysis of the delineated literature. The secondary objectives of the research are linked to the literature review in the following way.

1. To investigate the concept of Knowledge Management in the local government sector **(this is presented in section 2)**.
2. To determine the approaches applied in Human Resource Management regarding knowledge distribution **(this is presented in section 2)**.
3. To investigate the models for the distribution of tasks across the organization **(this is presented in section 2)**.
4. To analyse the standardization of knowledge and the preservation of knowledge in the local government sector **(this is presented in section 2)**
5. To investigate the role of Knowledge Management in improving service delivery areas in the local government sector **(this is presented in section 2)**
6. To explore the international and regional best practices in the application of Knowledge Management in the local government sector **(this is presented in section 2)**
7. To investigate the availability of Knowledge Management frameworks and practices in the municipalities **(this is presented in section 2)**
8. To establish if the organizational culture and policies enable effective implementation of Knowledge Management practices in the local government sector **(this is presented in section 2)**.

9. To examine the challenges debilitating the effective implementation of Knowledge Management in the local government sector **(this is presented in section 4)**.
10. To recommend strategies that can enhance Knowledge Management in the local government sector **(this is presented in section 5)**.
11. To identify implications for skills development and capacity building within the local government sector **(this is presented in section 2)**.

Municipalities differ in size, locality and complexity and this shapes and constrain knowledge sharing. In South Africa, organizations face various challenges, one of which is the volatile, uncertain, complex, and ambiguous (VUCA) environment (Reddy, 2018; Barbier and Tengeh, 2022). The energy crisis, service delivery protests, fraud, and corruption as well as the fragility of our democratic institutions, have become the backdrop for the nation's governance. Barbier and Tengeh (2022), argues that a VUCA environment has long-term projects and programmes constantly at risk, hindering organizational decision-making and planning. Although several studies exist on KM in the South African local government, however, KM has not been studied in-depth and very little empirical research exists on how to effectively implement KM in the South African government context (Akuku, B, Oboko, and Waema, 2020; Chawuke, 2018).

SECTION 2: LITERATURE REVIEW

This literature review report discusses the knowledge management (KM) in local government and how it can enhance decision-making and productivity by avoiding information overload and unnecessary costs.

The purpose of the literature review is to provide the reader with an overview of the KM literature and the thoughts of scholars, the concept of knowledge and the management of knowledge, the historical summary of KM, the South African governance framework and the developmental context of local communities. The theoretical underpinning of KM and the elements of an integrated KM system conclude with a section on KM's critical success factors (CSFs) and the implementation tools to ensure success. A range of tools and techniques for promoting knowledge sharing (e.g., communities of practice, after-action reviews, knowledge banks) will be considered and offer guidance in respect of developing an approach to KM in local government through knowledge audits and KM strategies. The report will further consider some of the organizational factors that can both support and inhibit the development of KM in local government in terms of building knowledge capability and encouraging knowledge sharing (Brynard, Hanekom and Brynard, 2014).

1 HISTORICAL DEVELOPMENT OF KNOWLEDGE MANAGEMENT

There is broad agreement amongst scholars that KM dates back to the Greek philosopher Aristotle, who attempted to create and record knowledge for use in different societies. However, the view often deliberately minimises African knowledge systems holding western worldviews of knowledge as superior at the expense of African indigenous knowledge systems. During the last decade in particular, a number of scholars began to question the predominantly western worldview of knowledge, with the debate around the decolonization of knowledge gaining momentum.

African indigenous KM systems can be thought of as the methods and practices used by traditional (pre-colonial) African societies to transmit, preserve and utilize their knowledge, skills, and cultural heritage such as found in pre-colonial societies. The contested knowledge debate emphasises the need for post-colonial African scholars and states alike to embark on a transformative trajectory that permanently identifies, critiques and challenges the dominant western epistemologies of knowledge (Mahlala, Maramura, Netswera, 2022; Ramasobana, Tirivanhu and Tsotsotso, 2023). If this is not done, there is a real danger that Africa will be defined by the West according to Maserumule in Mahlala and Shai, 2022.

The modern concept of KM occurred during the birth of the internet and the global recognition of the internet's value as a resource for sharing information and knowledge, particularly for remote and geographically dispersed communities (Knowledge Associates, 2002; Koenig and Neveroski, 2008; Koenig, 2018; Mohajan, 2017, as cited in Barbier and Tenge 2022). Davenport invented the phrase "capture, distribute, and use knowledge" in 1994. Subsequent to this, the Gartner Group attempted to define the concept of a collection of methodologies that involve identifying, capturing, evaluating, retrieving and sharing all of an enterprise's information assets (Koenig, 2018).

Knowledge management started to gain popular appeal in the 1990s when Tom Stewart published an article that highlighted the importance of "brainpower". However, Nonaka's and Takeuchi's, "*The Knowledge Creating Companies creates the Dynamics of Innovation*" (1995) can be considered seminal in the literature on KM.

Most KM definitions focus on KM processes. Alavi and Leidner (2001) proposed KM as four processes: creation, storage retrieval, transference, and knowledge application. Broad consensus exist that KM incorporate concepts such creation, access, dissemination and application of knowledge (Nonaka and Takeuchi, 1995). Others such as Wigg (1997) define KM as the creation, maintenance, renewal, organization, transference and realization of knowledge. Liebowitz, (1999) define KM as the identification, capture, storage, sharing, application and selling of knowledge whereas Lin, (2014), consider KM as the generation, access, facilitation, integration, embedding, application, transfer and protection of knowledge. Castaneda, (2015) consider KM as the creation, acquisition, documentation, storage, electronic transference, face-to-face sharing and use and reuse of knowledge.

There is currently no commonly recognized definition of KM due to its broad and complicated nature (Igbinovia and Ikenwe, 2017; Koenig, 2018; Theriou et al., 2011). Nonetheless, delivering the proper knowledge to the right person at the right time is vital in KM. Aside from that, it is critical to realize that KM is about more than just obtaining knowledge. The goal of KM is to bring value to an organization so that organizational goals may be met (Hajric, 2018). In stark contrast to all other business fads of the late 20th century, KM has demonstrated an enduring capacity for longevity and expansion (Koenig, 2018; Barbier, 2022).

2 THE KNOWLEDGE HIERARCHY

This section will introduce the concept of knowledge and how this relates to data, information and wisdom (the knowledge hierarchy). This is followed by explaining implicit, explicit and embedded knowledge. Ryle in Armstrong, 2006 argues that a distinction needs to be made between knowing how (the ability of a person to perform tasks) and knowing that (holding pieces of knowledge in one's mind). Knowledge can be defined as information that changes something or somebody either by becoming grounds for actions or by making an individual (or an institution) capable of different or more effective and efficient actions because it provides an understanding of or insight into issues, relationships among variables and contexts (Hajric, 2018; SALGA, 2018).

This definition encompasses both the individual and corporate aspects of knowledge. Knowledge can be considered a critical strategic attribute and resource of the organization since, successful organizations have learned to treat employees as a strategic resource in which they invest to produce more knowledge to increase their competitive advantage (Drucker, 1998, as cited in Ahmed, 2009, Gorzelany-Dziadkowiec, 2008). The most advantageous use of knowledge is used to achieve a competitive advantage and increase performance. It is sometimes referred to as using the organization's intellectual capital (McInerney, 2002).

By its very nature, knowledge is more than data. Data can be defined as a set of discrete, objective facts about events and can be considered the basis for creating information and knowledge. In this instance, data is represented by characters that can be produced, codified, and distributed. On the other hand, information is context-bound and can be considered as messages created through the interpretation of data to be understood by the recipient and has meaning to the recipient (Greiner, Bohmann, and Krcmar, 2007). For Theirauf (1999, as cited in Hajric, 2018), data is the lowest point (unstructured collection of facts and figures), while information, on the other hand, is regarded as structured data. Finally, knowledge is considered as "information about information".

Barbier and Tengeh (2022) took it a step further and introduced the knowledge hierarchy adding the concept of wisdom as illustrated in Figure 1.

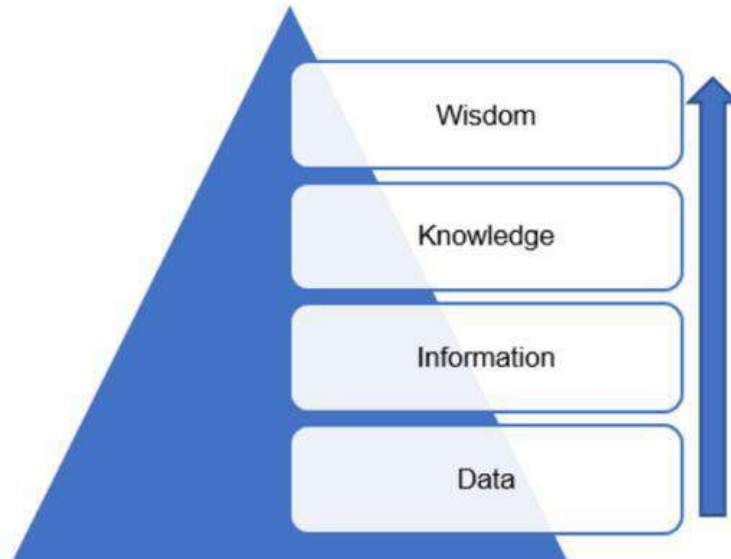


Figure 1: Knowledge hierarchy

Data can be considered the beginning step for attaining a concrete result and presented in logs, records, and measurements. Accordingly, data must be contextualised, categorised, calculated, and condensed to produce information.

Information is the conclusion and interpretation of the data developed because of the data obtained (Fernanda and Salwa, 2018). Information is considered by Drucker in Armstrong, 2006 as data endowed with meaning and purpose.

Knowledge is the perception of information that people have altered. Knowledge emerges from the processing of the perceived information and contextualization of a person. Thus, knowledge can also be defined as the ability of an individual to consider information and act on it (Greiner et al., 2007). Hajric (2018) argues that knowledge is closely linked to an action or doing and implies “know-how” and understanding. Thus, the knowledge possessed by each individual is a product of their unique experience and encompasses the norms by which new inputs from their surroundings are evaluated and considered (Davenport and Prusak 2000). Gamble and Blackwell (2001, as cited in Hajric, 2018) define knowledge as a fluid mix of framed experiences, values, contextual information, expert insight, and grounded intuition that provides an environment and framework for evaluating and incorporating new experiences and information. It originates and is applied in the mind of the knowers. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, practices, and norms (culture).

Ahmed (2009) argues that knowledge is as much a factor of production as labour and sustainable socio-economic development is about the commitment of resources and the impartation of knowledge. This includes the trade-offs between financial sustainability, the quest for knowledge and the ability to ensure effective knowledge transfer between experienced and young employees entering the workplace for the first time. Knowledge is also about creating a conducive environment to allow for seamless knowledge flow across different sectors in the organization. It is about keeping research relevant and demand-driven, building a solid reputation, and ensuring that all knowledge is of the highest quality and can withstand scrutiny. However, Nonaka and Takeuchi (1995, as cited in Ahmed, 2009) argue that from a management perspective, the key difference between information and knowledge is the fact that information is much more readily identified, organised, and distributed. In contrast, knowledge cannot be managed because it resides in a person's mind.

Finally, wisdom can be considered the highest skill demonstrated by a person's capacity to apply information efficiently and wisely. In this instance, the person can make informed and intelligent judgments. But wisdom depends on data, information, knowledge, and additional attributes. To be knowledgeable, a person must have experience, judgment, intelligence, cognition, values, and beliefs (International Labour Office, 2011). These characteristics are identified with wisdom (Intezari and Pauleen, 2016).

Since the boundaries between wisdom, knowledge, information, and data was clarified, it is possible to consider the different forms in which knowledge exists and how it can be accessed, shared, and combined. A distinction between tacit, explicit knowledge and embedded knowledge is presented.

2.1 Tacit and implicit knowledge

Tacit knowledge can be considered the personal and context-specific knowledge of a person. It is bound to the person and is thus difficult to formalize and communicate. Hence it is impossible to separate, store and distribute the knowledge of somebody in its entirety (Armstrong, 2006, Davenport and Prusak, as cited in Hajric, 2018). Tacit knowledge is unspoken and hidden whereas implicit knowledge includes skills that can be transferred from one job to another. Implicit knowledge is often acquired without an individual even realizing it. The type of implicit knowledge-sharing tool that has received the most attention is communities of practice that is introduced later in the text. It is the expertise and assumptions that individuals develop over the years that may never have been recorded or documented. At best, it resides in the minds and hearts of people. Amongst others, it

includes cultural beliefs, values, attitudes, mental models, skills, capabilities and expertise of people (Igbinovia and Ikenwe, 2017; Hajric, 2018; Fernanda and Salwa, 2018). Tacit knowledge can also be described as subjective and personal, but it can be shared to some extent. Passing on knowledge is a process that can be helpful to others and ultimately valuable to the organization. Tacit knowledge is often context-dependent and personal. It is hard to communicate and deeply rooted in action, commitment, and involvement (Nonaka, 1994, Hajric, 2018; O'Riordan,2020). Tacit knowledge characteristics include personal insights, understanding, and assumptions that may be difficult to articulate. It is mainly passed through socialisation, coaching, and mentoring (McInerney, 2002).

2.2 Explicit knowledge

Explicit knowledge, on the other hand, can be codified, collected, stored, and disseminated. It is not bound to a person and has the character of data primarily. It is mainly grounded in tacit knowledge and created by externalization (visualization, articulation, or codification) (Nonaka and Takeuchi, 1995, Wellman, 2009). It is that part of tacit knowledge that can be expressed verbally and does not represent the entire body of knowledge (Nonaka and Takeuchi, 1995, Hajric, 2018). Explicit knowledge can be considered knowledge that has been explained, recorded, or documented. However, when tacit knowledge has not been represented and made explicit in an organization, there could be lost performance opportunities, which other organizations may exploit for their benefit (McInerney, 2002; Hajric, 2018). Some regard explicit knowledge as less critical (e.g., Brown and Duguid, 1991, Cook and Brown, 1999, Bukowitz and Williams, 1999). It is considered more straightforward and cannot contain the rich experience-based “know-how” that can generate lasting competitive advantage. Explicit knowledge is found in databases, memos, notes, and documents, to name but a few (Botha and Kourie, 2008, as cited in Hajric, 2018).

2.3 Embedded knowledge

Finally, embedded knowledge refers to the knowledge that is locked in processes, products, cultures, routines, artifacts, or structures of organizations. This knowledge is embedded either formally (management initiatives to formalize organizational practices) or informally (how the organization uses and applies tacit and explicit knowledge (Hajric, 2018). Some examples of embedded knowledge are rules, processes, manuals, organizational culture, codes of conduct, ethics, and products. Although embedded knowledge can exist in explicit sources such as written manuals, the knowledge itself is not detailed and may not be immediately apparent to employees. In many organizations,

culture, and routines can be challenging to understand and change. On the other hand, formalized routines may be easier to implement, and management can actively try to embed the fruits of lessons learned directly into procedures, practices, and products. Organizations that successfully manage embedded knowledge may enjoy a significant competitive advantage over others (Hajric, 2018).

Considering the difference between implicit, explicit, and embedded knowledge, the process of managing knowledge is assumed. This means acting upon knowledge. Knowledge as an umbrella term is useless if it is not applied and acted upon to inform and improve attitudes, actions, behaviours, relationships, processes, structures, and systems. The most critical attribute of the so-called 4th industrial era is its use of integrated knowledge application systems to achieve goals better (Hajric, 2018). An organization has now decided whether to adopt a more systematic KM system to improve its performance. However, systematic KM is now an essential attribute of any successful organisation because of its competitive advantage. Without it, no organisation can survive or be sustainable in the increasingly complex 21st century (Hajric, 2018).

3 MANAGING KNOWLEDGE IN ORGANIZATIONS

In 1959 Drucker defined the knowledge workers as individuals within organisations with high levels of competence who have the ability to apply their competencies to solve complex organisational problems, create new products or services. The process of managing knowledge workers involves guiding and integrating the autonomous and interconnected work of highly competent individuals who require freedom and flexibility to be effective with ongoing opportunities for learning and development. Managing and motivating knowledge workers (who either share or hoard knowledge) can be considered the essence of knowledge management (Armstrong, 2006). KM can be considered a rapidly developing discipline and considered the most creative and innovative management concept to have emerged over the last quarter of a century as stated earlier in the text. KM is the process of capturing, developing, sharing, and using organizational knowledge to achieve predetermined objectives and built on the belief that the most valuable resource of organizations is the knowledge of its people (Kuras and Kuras, 2015, Barbier and Tenge, 2022). Hence KM has two main objectives—to improve efficiency and effectiveness and to encourage innovation that leads to increased organisational performance. Performance then equals activities that ultimately lead to short to medium-term deliverables/outputs (data) and outcomes (information and knowledge) and societal impacts (wisdom) (Greiner et al., 2007).

KM, or knowledge sharing in an organization is based on knowledge creation and transfer. This assumes that the task of KM is that the organization benefits from the knowledge that resides in the organization to achieve its pre-determined objectives McInerney (2002). Words and phrases that speak to the dynamic nature of knowledge include (inquiring, being aware, understanding, cognisance, intelligence, and information acquired through study and learning). The words used to define knowledge indicate how knowledge results from various processes that also demonstrate the active nature of knowledge. Unlike static information that can be held in databases and on paper, knowledge is based in people and emanates from them and changes with the human experience. Since the organization has both an active and a social dimension and is dependent on personal interactions with others, it is concluded that knowledge has a dynamic and a social dimension (Brown and Duguid, 2000, as cited in McInerney, 2002).

Hajric (2018) argues further that KM is about getting the right knowledge to the right person at the right time. This implies an understanding of organizational strategy and understanding of where and in what forms knowledge exists, the creation of processes that span organizational functions and ensuring that initiatives are accepted and supported by organizational members. This may include and even lead to the creation of new knowledge or it can solely focus on knowledge sharing, storage, and refinement. The primary objective then of KM is to create value and leverage and refine the organization's knowledge assets to meet organizational goals.

For O'Riordan (2020), KM is about building organizational intelligence by enabling people to improve how they capture, share and use knowledge. This involves utilising the ideas and experience of employees, customers and suppliers to improve the overall organization's performance (efficiency and effectiveness) and building on what works well leads to better strategy, practice and decision-making.

Snowden (2000, as cited in Ahmed, 2009) defines KM as the identification, optimisation, and active management of intellectual assets, either in the form of explicit knowledge held in artefacts or as tacit knowledge possessed by individuals or communities. The different aspects of KM include adequate access to appropriate resources, IT and communication mechanisms; capture and management of tacit knowledge; enabling organizational culture, individual attitudes, physical environment and records management and training and development. In order to manage knowledge, it must be identified, collected, analysed or shared. This can be supported through software, databases, servers, or networks of computers. Information systems help to search, collect and store interesting information.

What KM method is used depends on how the organization adopts the management system (Tran, 2005). However, KM has not been without criticism. Leonard and Sensiper (1998) argue that knowledge cannot be managed because it is considered too broad and vague.

The process then of KM in organizations requires the implementation of two processes, viz. acquiring knowledge from the outside (learning from market leaders and others through comparing and improving someone's solutions) and acquiring knowledge from within and outside the organization (where knowledge exists, develops, and flows between employees and the external environment) and managing this within a defined organizational KM system (Haraf and Wojcik, 2012).

3.1 Records Management and Knowledge Management

The International Organisation for Standardization (ISO) in Weller, 2017 defines records as information created received and maintained as evidence in the pursuance of legal obligations in the organisations. In short, a record serves as evidence. Duranti and Xie (2012) consider a record as a document that is made or received in the course of a practical activity that is then set aside for action or reference. Record management (RM) refers to how the organisation systematically design, implement and administer control in the creation, use, handling, maintenance, and disposition of organizational records in the lifespan of the organisation. It is considered one of the key functions of every organization and is associated with dedicated management by professionals and competent employees.

Duranti and Xie (2012) further argues that RM is important for KM's practical implementation because it demands the quality and usability of records generated by the KM function or activities. KM is subject to RM rules and practices such as appraisalment for establishing retention schedules that is and legal compliance governing record keeping. It is best to consider KM and RM as two professionally independent fields of study focussing on two different complimentary outcomes that has as a goal to standardize knowledge and the preservation of knowledge in organisations. It is concluded that KM focus on organisational learning, innovation and improvement and RM on trustworthiness, compliance and organisational integrity.

4 THEORETICAL FRAMEWORK FOR KNOWLEDGE MANAGEMENT

A theoretical framework is the mental conceptualisation of an idea explaining or predicting something (Brynard et al., 2014). Several theoretical frameworks exist to understand and interpret KM. Amongst the commonly used frameworks are the following that has been proposed for understanding KM. Among the widely used frameworks are:

1. **Resource-Based View (RBV):** In this framework, the organization's resources, more specifically the knowledge base of its human resources (capabilities and competencies), are considered the competitive advantage making the organization more effective (Madhani, 2010, Cloete, 2019)
2. **Knowledge Management Systems (KMS) framework:** In this framework, the focus is on the reliance on systems, processes, and technologies that organizations use to manage knowledge to improve performance (Mussey, Ramesh, and Montoya-Weiss, 2005).
3. **Knowledge Conversion Model:** This framework considers the conversion of knowledge into action. In this case, effective KM considers converting data into information, information into knowledge and knowledge into action (Masrek and Zainol, 2015).
4. **Social Capital Perspective:** In this framework, KM is closely related to the strength of an organization's social networks (formal and informal relationships). In this instance, social capital (the consequence of social relationships) can enhance organizational knowledge leading to higher performance (Han, Grace, and Kang, 2022).
5. **Knowledge Management Maturity Model (KMMM):** This framework suggests that organizations can be classified into different stages of KM maturity. The focus is to identify the level of organizational KM maturity by determining the organizational capabilities and practices (Bougoulia and Glykas, 2022)

The frameworks discussed above provide complimentary perspectives on KM, emphasising the different lenses the end user could use to understand and manage knowledge systems in organizations.

5 ELEMENTS OF A KNOWLEDGE MANAGEMENT SYSTEM

A Knowledge Management System (KMS) is a set of defined organizational processes, procedures and activities used to implement KM principles. Adopting a KMS is to enable the organization to make quick, informed decisions, reuse institutional and individual experiences to solve known problems, and stimulate innovation. In addition, it could allow organizations to retain tacit knowledge, maintain proper content governance and authentication, increase focus on outcomes, enforce best practices and work smarter through knowledge refinement (Maramba and Smuts, 2022). The various applicable KM systems are illustrated in Table 1.

Knowledge management systems can be considered drivers or enablers for success. The implementation of a KM system or framework is a process that integrates people, organizational processes, technology, and customers. Three types of KMS systems can be distinguished: prescriptive, descriptive and hybrid. The prescriptive system provide direction on how activities should be done, the descriptive system characterises KM highlighting the attributes of KM considered essential for the success of KM initiatives and the relationships among the status quo, knowledge, and change. Finally, the hybrid system is a combination of prescriptive and descriptive frameworks (Heisig, 2009, as cited in Maramba and Smuts, 2022).

The use of conceptual frameworks in implementing a KMS can be particularly beneficial to organizations as they offer a guide mapping out a defined path or specific processes to be followed. Using available frameworks removes duplication and cuts costs and time since the end relies on existing frameworks and knowledge. However, for KM to succeed, it needs to be operationalised at a lower level, with the KM processes considered a critical success factor of KMS (Robinson, 2010; Meher and Mahajan, 2013; Badimo and Buckley, 2014).

Organizations must know understand and appreciate that no single framework can enable a successful implementation of KM systems but rather a combination thereof (Maramba and Smuts, 2022). A KM framework is considered a conceptual structure defining essential components and presenting a supporting structure to build KM (CEN, 2004). It offers a framework indicting a schematic picture and description of various aspects, helping users through the identification of predefined guidelines. They offer and excellent bedrock on which implementation strategies and initiatives are built that ultimately minimise the

chances of the KMS project failures as known issues are mitigated (Pawlowski and Bick, 2012 as cited in Maramba and Smuts, 2022).

Table 1:

Knowledge Management Systems Cluster	Focus Area	Critical Success Factor	Typical KMS Activities
Operational KM process	Operational KMS implementation Management	<ul style="list-style-type: none"> • Technology infrastructure, appropriate software, and technology aspects • KMS Processes, identification of the required processes and activities • Define and identify work break down structures of KMS activities 	Knowledge creation: build and set up knowledge creation tasks
			Knowledge organization: prepare artefacts that define the arrangement of knowledge
			Knowledge transformation: develop tools to perform knowledge conversion (tacit, explicit, and implicit)
			Knowledge storage: set up a platform where knowledge will be stored or archived
			Knowledge sharing: construct interface and visuals that enable knowledge sharing and exchange
			Knowledge transfer: build artefacts and process that enable knowledge collection and transfer
			Knowledge validation: authentication and verification of KMS content
			Knowledge improvement: Update, continuous KMS enhancement for value addition
Strategic KM	Leadership		KMS Strategizing, setting up direction, goals, objectives, and values

	<ul style="list-style-type: none"> • Business and KMS alignment strategy, keep KMS project aligned to business goals and objectives. • Governance, the need to manage KMS content and resources. • Measurement, set up metrics that will be used to measure the success and impact brought by KMS. • Change management, prepare a change management plan and strategy for implementing KMS. • KMS realignment with the organization's vision 	KMS Review, update, realign, and apply continuous improvement
		KMS Evaluation, evaluate the difference made by KMS
		KMS identification, identify critical areas where KMS is required
		KMS Strategy defining and implementing
		Draw up a KMS implementation plan
		Draw up KMS development plan and appropriate resources

Socio-Technological KM	Tactical	<ul style="list-style-type: none"> • Adoption of KMS culture • Defined and improved roles and responsibilities • Improved KMS sharing and implementation. • Improved and reengineered business processes 	Implementation of KMS culture and change management process
			Knowledge visualisation and Interface design
			Content contribution and authentication
			Selection of suitable infrastructure for KMS
			Human resources task allocation, roles, and accountability assign the best-skilled resources for the right tasks
			KMS Management and sustainability
Organizational aspects of KM	Organizational	<ul style="list-style-type: none"> • Integration, KMS combines operations and procedures in the organization. • Integration of procedures, processes, and technology into the knowledge library • Technological changes to manage external and internal aspects that impact KMS adoption. • KMS fusion with industry practice and legislation • KMS supports Customer needs. • KMS globalization alignment and the industrial revolution to stay relevant in the business universe. • Resources distribution, where the organization will depend on external contribution and Support 	Customers' needs are satisfied: end customers, stakeholders and investors benefit from KMS implementation
			Economic value: improve quality and efficiency and reduce the cost of production, managing economies of scale
			Innovation: KMS as key to Industry innovation
			KMS performance: quick turnaround times to customer's needs
			Growth, KMS enables the organization to expand as a learning journey has been reduced
			Resources: Making KMS resources available
			Accountability: Align human capital to KMS roles and reporting structure

Source: Adopted from Maramba and Smuts (2022)

Organizations embarking on a KM system need to be cognisant that the successful integration and completion of four broad types of KM projects are essential:

- **Creating Knowledge Repositories** – In this the focus is to capture knowledge and to treat knowledge as an entity separate from the people who create and use it. This is done by storing embedded knowledge and storing these in a repository where it can easily be accessed.
- **Improving Knowledge Access and Transfer** – Projects like this focus on activities providing access to knowledge or facilitating its transfer between people. Such activities include communities of practice (online communities or face-to-face communities), workshops, seminars, desktop zoom conferencing and other sharing tools.
- **Enhancing Knowledge Environment** – These projects include activities geared to establish an enabling environment that leads to more effective knowledge creation, sharing and use. These include building awareness and cultural attention to the organizational value of knowledge sharing, such as behavioural changes and incentives to share knowledge.
- **Managing Knowledge as an Asset** – Projects of this nature focus on acknowledging knowledge as an asset on the organizational balance sheet. Since knowledge is intangible, it makes it very difficult to measure this in financial terms (Shannak, 2009).

KM systems enable municipalities to muster organizational knowledge by systematically capturing and organising the vast wealth of knowledge, experience, and expertise of staff, clients, stakeholders, beneficiaries, and partners, making the knowledge readily accessible.

An essential element of KM is organizational culture and the effective management of the organization's human resources, support from management, appropriate incentive schemes and the development of mutual relations among the employees (Haraf and Wojcik, 2012).

6 HUMAN RESOURCE MANAGEMENT AND THE MANAGEMENT OF KNOWLEDGE

An organization is a collective of individuals committed to achieving organizational objectives (Cloete, 2019). Since knowledge is derived from an individual's use of information combined with their experiences, an organization's human resources significantly impact its KM activities (Gaffoor and Cloete, 2010).

All employees in an organization can be considered knowledge workers since the nature of the tasks they perform involve the generation of knowledge through accessing data, using implicit personal knowledge, external knowledge from the environment and organizational knowledge (Sutton, 2006, as cited in Gaffoor, 2010). This requires employees to consistently utilise and convert knowledge from various sources to facilitate decision-making and maintain adequate standards within the organizational business processes (Taylor, 2007, as cited in Gaffoor and Cloete, 2010).

Human resource management can be considered as how the organization attracts, maintains, and develops employees (Cloete, 2019). It is necessary to consider various components of the human resources function when considering the influence of human resources on KM within organizations. During the recruitment process (attract), organizations determine a prospective employee's expected level of competence (knowledge, skills, and attitudes) and then assess the incumbent. Should the incumbent be employed, the employee's knowledge begins to hold value for the organization through the application of the knowledge by the employee in his new position within the organization (Taylor, 2007, as cited in Gaffoor and Cloete, 2010). However, in many organizations, especially municipalities, people may be wrongfully placed, preventing seamless integration within the organization.

Employees are further able to gain valuable knowledge from induction and training programmes. These programmes allow employees to transfer their knowledge into the organization's practices, processes, policies, and traditions thus making favourable contributions to the organization's human capital in the long term (Gaffoor and Cloete, 2010). Organizations with a high staff turnover also face the risk that critical organizational knowledge may be lost in the event of employees retiring or exploring other opportunities beyond the organizations. Hence organizations should ideally implement KM strategies that foster learning, encourage collaboration and sharing by promoting teamwork and allow employees ample time to learn and reflect on their knowledge (Skyrme, 1999).

7 KNOWLEDGE AND ORGANIZATIONAL LEARNING

The possibilities of applying learning innovation are often constrained and limited in such organizations with employees working in silos (Schwella, 2014).

Senge (1990) defines learning organizations as organizations where people continuously expand their capacity to create results they desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free and where people are continually learning how to learn together, thus emphasising the action orientated process of learning. Formulation a critical part of learning then involves action learning. In this regard, action learning describes a strategy used in a group setting, that seeks to generate learning from human interaction arising from engagement in the solution of real-time work problems. These actions contribute to institutional capacity building and improved performance as it is embedded in action and intended to bring about some improvement or implement some worthwhile initiative. Important to note is that in action learning the action and the learning are integrated and not separated. Whilst employees solve problems and introduce change, they learn. Action learning by its very nature is critically reflective before, during and after the action on which the learning is based. Action learners act with intention, pay attention and is mindful to what happens and analyse their actions and the consequences later. Mindfulness and critical reflection are thus important features of action learning, improving both the action and the learning for organizational team members and ultimately benefits the organization (Raelin, 2000, as cited in Schwella, 2014).

The primary goal of KM is to improve the organization's knowledge assets to realise better practices, improved organizational behaviours, better decisions and improved organizational performance and impacts. King (2009, as cited in Schwella, 2014) argues that learning is KM's critical component and goal. By motivating the creation, dissemination and application of knowledge, KM initiatives profit through helping the organization's embed knowledge into organizational processes so that it can continuously improve its practices and behaviours and pursue the achievement of its goals – in the case of local government, improved service delivery.

The link between organizational learning and KM can be made as a critical interrelated set of dynamics, creating important ways in which the organization can (sustainably) improve its utilisation of knowledge to benefit the organization. This improved utilisation of knowledge is associated with improved performance and contributions in respect of innovation; individual learning; collective learning; collaborative problem-solving;

embedding knowledge; creating dynamic capabilities; and knowledge re-use (Schwella, 2014).

There is thus a definitive correlation between knowledge and organizational learning. Essentially organizational learning is about how people collaborate to achieve personal and organizational objectives. Since knowledge and organizational learning are so closely linked, it is doubtful that any organization can share knowledge and manage knowledge artefacts without a commitment to creating a learning culture. Learning and KM involve change and movement to new levels of cognition and understanding among individuals in an organization. For McInerney (2002), KM is an effort to increase valuable knowledge within the organization which includes encouraging communication, offering opportunities for members of the organization to learn, and promoting the sharing of appropriate knowledge. What sets organizations apart is to consider knowledge creation a continuous process, as this keeps organizations healthy and innovative. The process of dynamic knowledge creation occurs during socialisation when internal (tacit) knowledge is made external (explicit).

Effective and ethical governance requires learning processes to enhance KM implementation for change, which build individual and institutional capacity to improve organizational performance. In this process of knowledge-based learning for good governance, action learning and evidenced based research approaches are advocated to improve government's performance. This is particularly useful to build capacity towards team and systems-based continuous quality improvement and enhanced service delivery capacity. (Schwella, 2014, DPSA, 2020).

8 CRITICAL SUCCESS FACTORS FOR IMPLEMENTING KNOWLEDGE MANAGEMENT

Organizations that are committed to KM should take into consideration the organizational enablers such as strategy and leadership, culture, processes, technology, and politics as critical success factors in creating an effective KM system (Schmitt, 2022:15). Implementing KM in any organization is difficult as several factors influence the success or failure (Winkler and Mandl, 2007; Sin and Nahrgang, 2009). Successfully implementing KM in the organization depends on the critical success factors (Theriou et al., 2011), as illustrated in Figure 2.



Figure 2: Knowledge Management Critical Success Factors (Adapted from Hajric, 2018)

8.1 Organizational leadership/strategy

The KM strategy must be dependent on the overall organizational strategy. The objective is to manage, share and create relevant knowledge assets (workers) that will help meet tactical and strategic organizational requirements. For KM to succeed requires the implementation of an organization strategy that is based on the collaborative efforts of a cross-section of organizational members (Yeh et al. 2006, as cited in Gaffoor and Cloete, 2010). From the strategy flows the various organizational policies and programmes that give effect to the organization's KM strategy. Organizational strategy then is a result of the leadership efforts in organizations that formulate and co-create strategy with a variety of stakeholders. The implementation of KM is dependent on the commitment of top management as resource mobilisers for successful implementation. A successful KM strategy is dependent on exemplary leadership committed to continuous improvement (Rylatt, 2003, as cited in Gaffoor and Cloete, 2010). This requires a long-term commitment from a cross-section of employees including organised labour and the ability to be receptive to internal and external changes in the organizational environment. For KM to be successful, requires competent and experienced management/leadership throughout the organization that appreciates the value and application of knowledge as a competitive advantage (Hajric, 2018).

8.2 Organizational culture

An organizational culture determines the way organizational actors engage or disengage, the specific context within which knowledge is created, the possible resistance people may have towards certain changes, and ultimately the way people may share or hoard knowledge. It can also be described as the unique combination of values, beliefs, and models of behaviour in an organization representing the core organizational values dictating behavioural norms of employees (Yeh, Lai and Ho 2006, as cited in Gaffoor and Cloete, 2010). According to Skyrme (1999, as cited in Gaffoor and Cloete, 2010) an organizational culture that fosters knowledge sharing is characterised by among other, a transparent organizational milieu, an engaged and empowered workforce, a dynamic learning environment, a continual quest for innovation and finding new ways of open and transparent communication, deliberate time for reflection and learning, learning and experimentation and bias towards extensive knowledge sharing among organizational members. Thus, the real value and meaning of knowledge within an organization only become apparent when it is viewed in the context of organizational culture (Lehaney, Clarke and Coakes, 2004:17). Organizational culture in the context of both KM and organizational learning represents both the significance and perceived advantages of

organizational knowledge and its impact on employees' willingness to share their knowledge to achieve optimal organizational performance (Gaffoor and Cloete, 2010).

8.3 Organizational structure

Gaffoor and Cloete (2010) contend that organizational structure refers to the way posts are organised in an organization to ensure optimal organizational performance. Nonaka (1994, as cited in Gaffoor and Cloete, 2010) argues that neither the top-down bureaucratic structure (where only top management has the power and ability to create information that they use as a mere tool instead of a tangible product) nor the bottom-up organizational model (where only lower-level and middle-level employees are responsible for knowledge creation) is favourable. Instead, organizations should adopt a non-silo organizational model that favours organizational members throughout the organization working collectively and collaboratively to generate knowledge. In this no single group has a monopoly on knowledge creation, instead, the organizational structure promotes communication across and within organizational boundaries and strengthens the interdependence of teams and networks (Gaffoor and Cloete, 2010).

8.4 Organizational processes

Barbier and Tengeh (2022) holds that organizational processes, organizational environments and systems enable KM to be effectively implemented in the organization. KM processes include identifying, creating, storing, sharing, and using knowledge to the benefit of the organization. Organizational process is concerned with the "how" and deals with matters such as records and information management, file planning, registry, and records management. The end goal is to ensure that the organization has readily available information, processes and information simplified and available (the development of the right processes will ensure that employees can access the right knowledge, in the right place, at the right time). Organizational processes then are all the activities or initiatives that support the organization to achieve its overall KM goals and ultimately benefit the institution as a whole (Hajric, 2018; SALGA, 2018; de Bem Machado, Secinaro, Calandra and Lanzalonga, 2022).

8.5 Organizational technology

Technology is the systems, tools and technologies that fit the organization's requirements and can be considered central to the maintenance and organization of the KM efforts of an organization. These tools should be appropriately designed and implemented. Accordingly, technology supports KM by facilitating easy access and retrieval of information which in turn encourages cooperation and communication between members of an organization. The information technology tools utilised for KM is known as KM systems (Alavi and Leidner, 2001, as cited in Gaffoor and Cloete, 2010). Organizations should be aware of how they use KM tools to enhance KM strategy. It is also important to know how the tool will be integrated with current systems and what degree of training and development would be required upon implementation of the tool (Taylor, 2007, as cited in Gaffoor and Cloete, 2010 (Ali, Abu Bakar, Tilwani and Ajanil, 2022:2).

8.6 Organizational politics

Organizational politics can be considered the long-term support to implement and sustain change initiatives and organizational resource allocation. This involves all organizational functions, which may be costly to implement (both from the perspective of time and money) and which often do not have an immediate viable return on investment. Politics in essence involves the use of resources in the course of social existence (Heywood, 2013; Hajric, 2018). Although the factor of political directives is not discussed in most KM literature, political influences impact significantly the creation of knowledge and often some unwritten policies or directions need to be followed. Thus, it may be accepted that political influence in a public organization impacts the effectiveness of knowledge transfer. Hence, political issues have a significant relationship both for the creation and transfer of knowledge (Syed-Ikhsan and Rowland, 2004, as cited in Msomi, 2015). Political directives can thus be considered an additional factor that impacts organizational knowledge transfer and creation.

9 KNOWLEDGE MANAGEMENT IMPLEMENTATION TOOLS

Organizations should be mindful of the critical success factors to implement KM, effectively and efficiently. The variety of options used to capture, store, and exploit knowledge is known as KM tools. This list is by no means exhaustive but offers organizations the relevant tools to introduce KM in their organizations (South African Cities Network [SACN], 2013; SALGA, 2018; Barbier and Tenengeh 2022).

- **Expertise Locator System:** An expertise locator system is used to categorize and locate employees with specific organizational skills, this allows the interaction with subject matter experts between employees.
- **Lessons Learned:** This involves gathering personal experience and making it available to others (such as through video logs). The purpose is to collect and use lessons acquired to prevent reinventing the wheel or repeating the same mistakes.
- **Enterprise Content Management (ECM):** An ECM system is a document management system through the use of technology. These systems are designed to make publishing, storing, indexing, and retrieving documents and records easier. A typical ECM system aims to produce results fast (Hajric, 2018).
- **Brainstorming:** This is a tool to generate ideas about a question, problem, or opportunity by stimulating and harnessing the creativity and energy of a group of people. This is beneficial, in particular at the start of a project. High-quality ideas can be generated in a short space of time. This also encourages inclusivity since ideas can originate from any space in the organization.
- **Social media:** The use of social media can be encouraged to facilitate informal, self-directed, and social learning using a variety of online platforms. Many of these platforms are free. This provides the platform to connect and communicate with stakeholders, customers, and partners.
- **Publications:** organizations can share knowledge with citizens and other stakeholders through publications. They can then share knowledge and information about particular events. This can lead to a culture that promotes information sharing and good practice.
- **Communities of Practice:** This is a forum for professionals to exchange best practices and advice, ask questions about difficulties and opportunities, examine best practices, discuss lessons learned, and support one another (Wenger, 1998; Snyder, Wenger, and Briggs, 1999; Hajric, 2018).
- **After Action Review:** This tool is used to gather information after a project or activity to determine its success and/or failures and to determine the lessons learnt. The

benefit to the organization is the documented knowledge of successes, mistakes, and recommendations for future use.

- **Benchmarking:** A method used to improve performance by comparing performance indicators with similar organizations and learning from the best practices. Benchmarking can be considered a learning tool used to improve performance by comparing performance indicators with similar organizations and learning from the practices of the best. learning from others by accessing an already existing pool of tacit and explicit knowledge, so that the collective learning experience of others could be used by those who wish to improve their organizations. This is of two types: competitive (collecting specific information about competitors, products, services, processes, strategies, and business results and comparing these to those of the benchmarking firm) and cooperative benchmarking – sharing experiences with cooperation organizations (Ahmed, 2009).
- **Case Studies:** Case studies are used to capture activities, events, or problems and how they were resolved or dealt with in lessons learnt, good practices or processes. Case studies can help the organization identify and replace poor practices and raise the organization's performance.
- **IT-Based Tools:** The organization can create tools and systems that meet KM goals. These are tools and systems that help KM meet its goals.
- **Exit Interviews:** The exit interviews are conducted with employees when leaving the municipality to determine the employee experience and to gain insight into the reasons for leaving, Useful information can be gauged from these. This ensures that important information is not lost to the organization. This can also result in the leaver of the organization feeling more positive,
- **Knowledge cafés:** Bring people together to have open, creative conversations on topics of mutual interest. In this people are encouraged to share ideas and learn from each other. It can also be used to encourage people to share and explore issues that need consensus.
- **Knowledge centres:** A knowledge centre focuses on collecting, organizing, and disseminating knowledge. The knowledge centre creates a framework and provides leadership, co-ordination, guidance, and expertise.
- **Knowledge champions:** Knowledge champions perform a functional role in distributing KM messages and activities consistently across the municipality. Most available people do not come pre-packaged with this full capability set, so most knowledge champions need to be developed into the role and coached through the early stages.

- **Knowledge events:** These are specific events that can be attended to gain greater insight, network and increase the organizational influence to gain knowledge and keep up to date with the latest trends and insights. The new insights can then be shared with colleagues at the municipality and add to the professional development of individuals.
- **Knowledge fairs:** These are themed specific events, designed to showcase information about an organization or a topic. They can be organised in many ways using speakers, demonstrations, or display booths on the specific information of interest to the attendees. In this way, knowledge is shared with a wider pool of employees which in turn increases the organizational learning assets.
- **Partnerships:** Partnerships are mutually beneficial formalised relationships that the municipality establishes with research communities such as tertiary institutions that could lead to increased organizational performance. Partnerships are formalised relationships that can be governed by a Memorandum of Understanding or Service Level Agreements. This can also be reciprocal since practical municipal experience can influence academic research.
- **Peer assist:** Peer assist brings together a group of peers to elicit feedback on a problem, project, or activity and draw lessons from the participant's knowledge and experience. This can be used to gather knowledge before embarking on a project to gain input from people inside and outside the team.
- **Storytelling:** Storytelling is the art of telling stories to engage an audience. This can be done to convey a message, information, and knowledge innovatively and entertainingly. Storytelling is a useful way to share organizational knowledge, values and organizational culture. This could lead to increased trust and commitment amongst the organizational actors.
- **Study tours and delegations:** A study tour can be beneficial to the organization since it can be a useful way to connect the organization with experts outside their own working environment, which can lead to new knowledge and creative ideas through site visits and planned action. Participants are particularly beneficial in that participants have an opportunity to develop contacts and networks that could lead to communities of practice.

The most widely studied forms of explicit knowledge-sharing techniques in the KM literature are expertise locator systems and lessons learned. Communities of practice have received the most attention as an implicit knowledge-sharing method (Virkus, 2011). Furthermore, according to Snowden (2002), it is difficult to know if someone is sharing what they know but determining if they are complying with existing systems is doable.

Consequently, KM tools may be considered a factor that contributes to the implementation of KM.

KM is the process of sharing knowledge across the organization to create organizational knowledge. This is not a linear process, and the transfer of this knowledge frequently poses severe challenges to organizations. The main reason is psychological barriers and constraints associated with organizational culture. The implementation of KM is challenging and requires the creation of a system of KM infrastructure whose aim would be to strengthen human, cultural and technological capital (Kuraś and Kuraś, 2015). This is also applicable in the public sector tasked with global development objectives.

10 STRATEGIC ALIGNMENT OF KNOWLEDGE MANAGEMENT

10.1 The Sustainable Development Goals (SDGs) 2030

Knowledge can be considered a prerequisite for development (Ahmed, 2009). Community development and institutional development depend on the quality and competence of local government management since local government managers have considerable influence on what happens in the municipality. But this depends on the organization's ability to learn and adapt to the changing VUCA environment since the differentiating factor for many organizations in the knowledge-based economy is knowledge in itself (Reddy, 2016). Knowledge can be considered the primary resource for achieving a competitive advantage. Organizations (big or small), as a matter of course, must collect, store, use and disseminate knowledge to perform the development mandate efficiently and effectively (Gorzelany-Dziadkowiec and Firlej, 2016).

The global development agenda is crystalised in the sustainable development goals SDG as adopted by the United Nations (should be action-oriented, concise, and easy to communicate, limited in number, aspirational, global and universally applicable to all countries, while taking into account different national realities, capacities and levels of development and respecting national powers and priorities (Reddy, 2016). The 17 sustainable development goals are illustrated in Figure 3.



Figure 3: Sustainable Development Goals

One of the most important aspects of this study is goal 16, which aims to build inclusive institutions on all levels. This implies that local government as the sphere of government closest to people has a vital role to play to realise the developmental objective and aspirations of communities. This was reiterated by Ban Ki-Moon, Secretary General of the United Nations who emphasised that all development is ultimately local, advancing that local government has an impact on decision-making at the global level. This concept of localisation is the process of defining, implementing, and monitoring strategies at the local level for achieving global, national, and subnational sustainable development goals and targets (Reddy, 2016).

11 KNOWLEDGE IN THE SOUTH AFRICAN GOVERNANCE CONTEXT

Section 195 of Chapter 10 of the Constitution of the Republic of South Africa, 1996, states the commitment of the state is:

- A high standard of professional ethics must be promoted and maintained.
- Efficient, economic, and effective use of resources must be encouraged.
- Public administration must be development oriented.
- Services must be provided impartially, reasonably, equitably and without bias.
- People's needs must be responded to and the public must be encouraged to participate in policymaking.
- Public administration must be accountable.
- Transparency must be fostered by providing the public with timely, accessible, and accurate information.
- To maximize human potential, good human-resource management and career-development practices must be cultivated.
- Public administration must be broadly representative of the South African people, with employment and personnel management practices based on ability, objectivity, fairness, and the need to redress past imbalances to achieve broad representation.

The Department of Public Service and Administration (DPSA) adopted the National KM Strategy Framework for implementation across the South African government. The strategic framework intends to contribute to achieving the 2030 National Development Plan DP 2030 to ensure institutional coherence and standardisation throughout all departments (Barbier and Tenengeh, 2022). The National KM Strategy Framework has four KM pillars: culture, people, content, and process. In this instance, technology serves as a KM Enabler (DPSA, 2019) as illustrated in Figure 4.

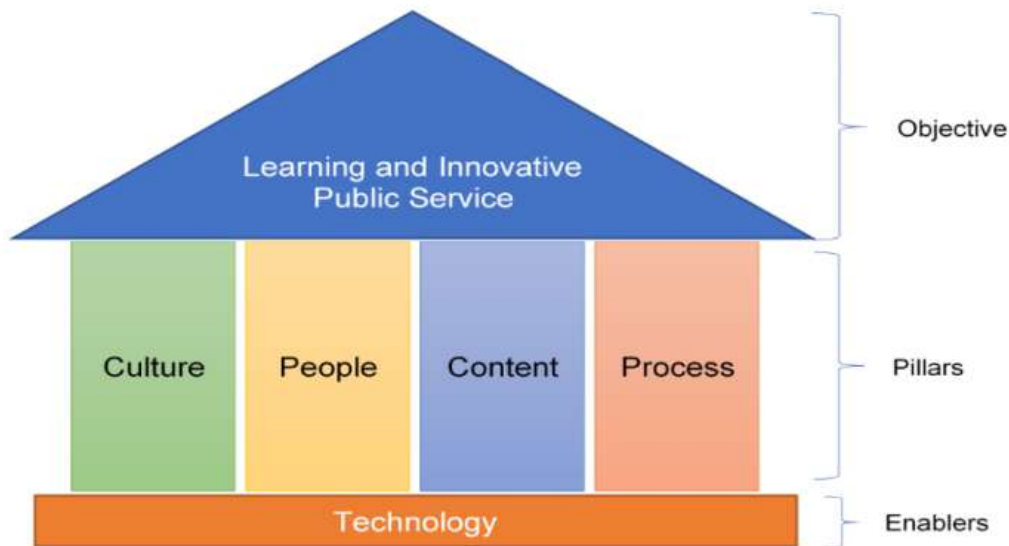


Figure 4: National KM Strategy Framework (Adapted from Barbier and Tengeh,2022)

The National KM strategy framework can be summarised as follows:

- **People:** An organization has various resources and people can be considered the most valuable resource to the organization. KM will only be effectively implemented if the people with the requisite competencies are employed or if they do not have the competencies. Hence, developing capacity and competency is critical to ensure KM's successful implementation. A variety of human resource development (HRD) interventions can be employed that, includes formal (university and or accredited courses, coaching and mentoring and informal learning and development (Barbier and Tengeh, 2022).
- **Culture:** Organizational culture is defined as the way the organization does what it does. In a highly politicised environment such as local government, political and administrative leadership are crucial to creating a conducive environment that encourages information flow (DPSA, 2019). As a result, culture is considered a crucial pillar.
- **Process:** The process pillar is concerned with the 'how' and deals with matters such as records and information management, file planning, registry, and records management. The end goal is to ensure that the organization has readily available information and that processes and information are simplified and available (DPSA, 2019).
- **Content:** Content is developed by people and takes the form of documentation, either available electronically or in print. This must be managed efficiently and

effectively. There is thus a correlation between content and KM processes driven by sound content management systems (DPSA, 2019); and

- **Technology:** Technology can be considered an enabler that is underpinned and enabled by Information, Communication and Technology (ICT) systems that in turn, provide a platform for sharing, capturing, creating, storing, organising, and applying knowledge (DPSA, 2019). Technology is then considered as both a support and a cross-cutting enabler for each KM Pillar mentioned above (Igbinovia and Ikenwe, 2017).

The national KM management strategy framework can be considered the functional and structural components that aim to institutionalise KM management in the South African government (Barbier, 2022), specifically in local government.

When knowledge is captured, stored, and used effectively in government, as suggested by Heck and Rogger (2004), the following benefits are realised (Ondari-Okemwa and Smith, 2009):

- Significantly improved efficiency, transparency, and quality of service delivery;
- Improvements in the transparency and agility of information flow;
- An equitable and more equitable division of tasks;
- Properly organised government;
- Properly organised internal business operations;
- Technologically effective internal business operations; and
- Optimised workflow-related skills.

11.1 The Department of Planning Monitoring and Evaluation Research and Knowledge Management strategy 2020 to 2025

The Department of Planning Monitoring developed a research and KM strategy that has the goal and evaluation of research and KM activities will help the organization generate and manage relevant information to inform progress, intervention, improvement, and future planning the strategy has as its goal to achieve to work towards an overall knowledge-sharing culture is achieved between units. To formalise the establishment of knowledge champions to coordinate and share knowledge that is generated within units, the development and management of relevant technologies including a portal to ensure easy retrieval and access to information and refining an evidence dissemination strategy (Department of Planning, Monitoring and Evaluation [DPME], 2020).

The DPME recognizes that without an effective and efficient KM evaluation system, it is impossible to evaluate whether research and KM activities are relevant, whether progress and success can be claimed, and how future efforts might be improved. This needs to be cascaded across all spheres of government, more specifically, the local sphere. This can be monitored and evaluated at different stages of the policy/programme cycle depicted by the Policy/Programme Cycle in Figure 5. The policy/programme cycle indicates stages in which evidence adds value to the diagnosis, planning design, implementation, and monitoring and evaluation processes to improve the developmental results associated with the government’s policy delivery.

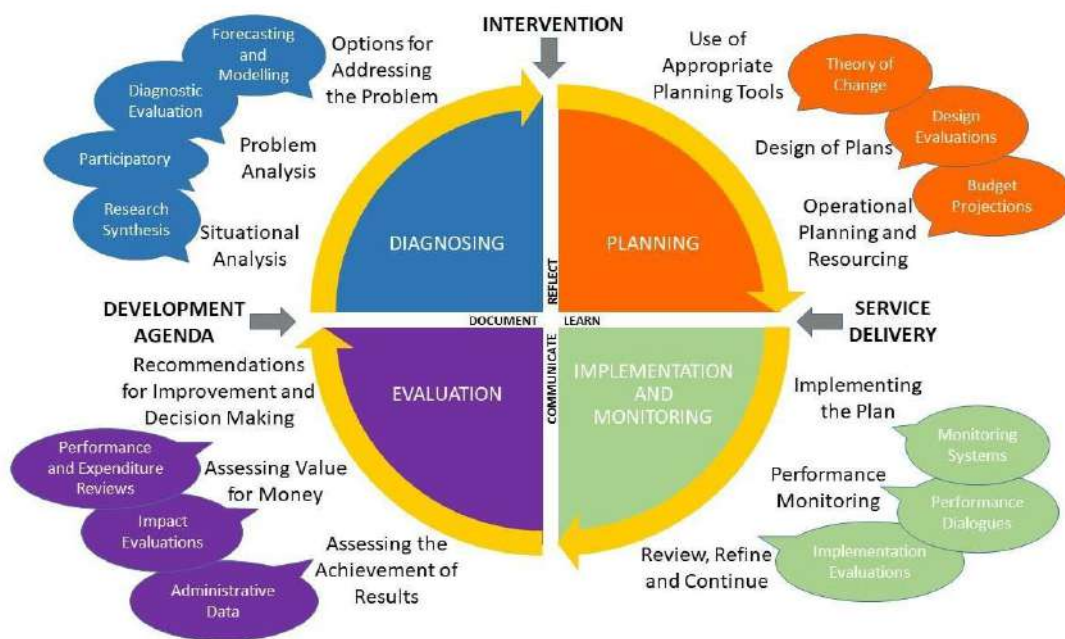


Figure 5: Policy/Programme Cycle

12 LOCAL GOVERNMENT LEGISLATIVE FRAMEWORK

The Constitution (South Africa, 1996) compels municipalities to take on a development role by assigning specific developmental responsibilities to the local sphere of government. According to the Constitution (1996), the objectives of local government are to:

- Provide democratic and accountable government for local communities;
- Ensure the provision of services to communities in a sustainable manner;
- Promote social and economic development;
- Promote a safe and healthy environment; and
- Encourage the involvement of communities and community organizations in local government matters (South Africa, 1996).

This implies that every municipality must strive to achieve the above objectives, considering (a) its financial, human resource and administrative capacity, and (b) the powers conferred on it. The above principles have since been translated into various policies and legislation to create uniformity for the HRM practice of the country's public service. In South Africa, 'wall-to-wall' municipalities were demarcated to ensure that all areas of the country have access to development and governance. To address the various developmental needs of different parts of the country municipalities were classified: The entire sphere of local government in South Africa is made up of municipalities, of which there are three distinct categories:

- **Category A municipalities** are large cities, with exclusive, executive, and legislative authority within their municipal boundaries.
- **Category B municipalities** are local municipalities that share executive and legislative authority with Category C or district municipalities. These municipalities usually fall within the boundaries of local municipalities.
- **Category C municipalities** are district municipalities that contain several local municipalities (SALGA ,2012:2013, Cloete, 2019).

However, the Constitution enables municipalities to provide services through internal mechanism or external mechanisms. These include mechanisms such as municipal departments, municipal entities, or a service delivery agreement with a third party (See Figure 6 below). A municipal entity is defined as an operational arm through which a municipality provides functions or services to its community. Municipal entities are accountable to the municipality or municipalities that established the entity and are required to adhere to a service delivery agreement consistent with the municipality's

strategic plans and performance objectives. Municipal entities are thus independent organizations that perform municipal services on behalf of a municipality and the municipality controls the majority shareholding (Institute of Directors, National Treasury, 2022).

In order for municipalities and municipal entities to realise the constitutional objectives, internal organisations is expressed through the following functionaries as illustrated in Figure 6.

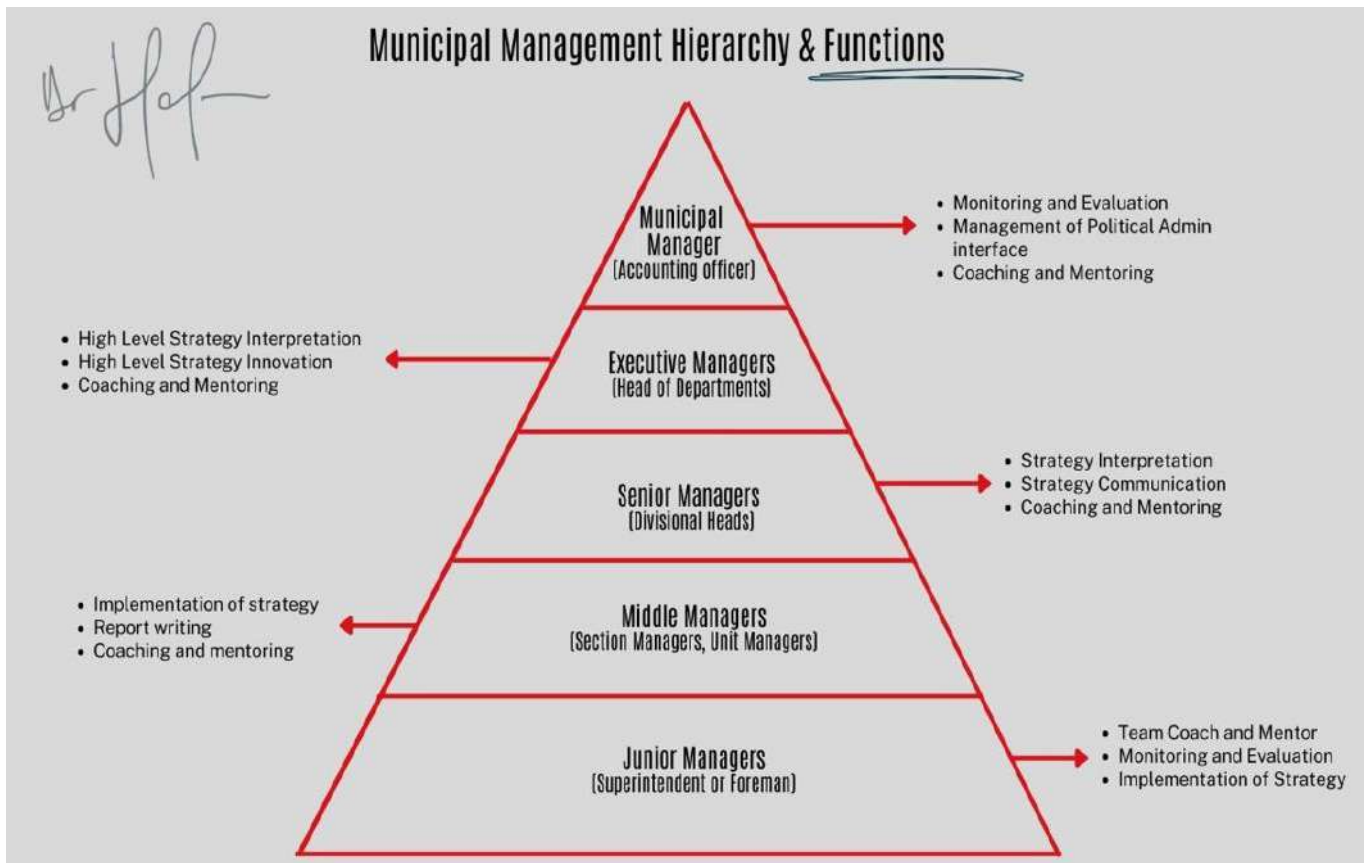


Figure 6: Management hierarchy and distribution of tasks

12.1 Municipal hierarchy and distribution of tasks

All municipalities or municipal entities have accounting officers. This functionary is considered the most senior administrative officer and performs various management and executive responsibilities as defined by the various local government legislation notably the Municipal Systems Act 32 of 2000 (as amended) and the Municipal Finance Management Act 56 of 2003 (as amended). The accounting officer as the administrative leader has the task of ensuring an organisational culture of knowledge management which includes monitoring and evaluation, management of the political and administrative

interface as well as coaching and mentoring of specifically the managers reporting to the functionary.

Executive managers are the second layer of managers that normally report to the accounting officers. They manage departments or directorates as referred to in some municipal directorates. They are responsible for high level strategy interpretation and innovation as well as coaching and mentoring of their immediate managers. The third layer of managers are senior managers who manage divisions and are sometimes called divisional heads. They report directly to their executive manager and are responsible for strategy interpretation, communication as well as coaching and mentoring.

Middle managers are the fourth layer managing sections or units reporting directly to their senior manager. They are responsible for strategy implementation (execution of the agreed organisational strategies), gathering data and generating organisational reports. They also perform coaching and mentoring role for their reporting staff. At the bottom of the management hierarchy are junior managers or sometimes referred to as first line managers. They report to their middle managers and occupy positions such as foremen or superintendents and are responsible for implementation of strategies and monitoring and evaluation of strategies.

12.2 Capacity Problems of Local Government

Houston and Kanyane (2022) argue that the capacity constraints facing local government to be more than just poor service delivery. The problems bedeviling local government is concentrated on 10 areas that is briefly discussed.

12.2.1 Financial resources

Lack of financial resources influence almost every other aspect of local government. Municipalities struggle to collect revenue as a result they do not have sufficient funds for service provision. The payment for services is a two-way process. If municipalities are not delivering services, the communities will be reluctant to pay. On the other hand, municipal officials complained that some government departments do not pay municipalities for their services. As a result, municipalities debt continuously balloons and this place unnecessary pressure on the municipalities to collect the revenue and to provide uninterrupted services (Houston and Kanyane, 2022).

12.2.2 Human resources

Municipalities face high vacancy rates, high staff turnover, incompetent staff, and several appointments in acting positions. Municipal officials also pointed out a lack of staff in key managerial and leadership positions and that staff often act in these positions or are on short-term contracts. The municipal officials indicated that municipalities that struggle with finances are also the ones that find it difficult to attract and appoint people with the skills needed for improved service delivery. This shortage of staff with the required skills has a major impact on the performance as well as the institutional environment of the municipality (Houston and Kanyane, 2022)

12.2.3 Administrative leadership

A major concern raised by the study participants was the absence of good ethical and accountable leadership (which is considered crucial for the strategic direction of the municipality), the institutional environment and culture, staff morale, relationships with stakeholders and many other aspects of the function of the municipality. Municipal officials felt that the following leadership qualities must be considered when appointing leaders: 1) leadership that is visionary and accountable, 2) leadership that is ethical, 3) leadership that is engaged and democratic, 4) leadership that is able to build partnership, and 5) leadership that is able to collaborate with people and organisations at various levels. The appointment of leaders with good intergovernmental relations and partnerships with other institutions, at all spheres of government is important because lack of effective leadership has caused delays infrastructural projects among other (Houston and Kanyane, 2022).

12.2.4 Political leadership and administrative interface

Municipal officials generally agreed in the that the relationship between the political and administrative leaders' impact negatively on the performance of the municipality as well as the municipal officials. This is constrained that more than often impacts negatively on the municipality leading to low morale and conflicts that often spills over into the administration (Houston and Kanyane, 2022).

12.2.5 Financial management capacity

Sound financial management was found to be a major challenge at almost all the targeted municipalities. For instance, municipal officials interviewed felt that it is a waste of human resources to work overtime or use outsourcing when it is not necessary. Municipal officials indicated that the institution has the culture of bringing in external consultants while the requisite skills for the task exist internally. This practice is even more worrying because some municipalities face budget constraints (Houston and Kanyane, 2022).

12.2.6 Municipal service delivery

It is well documented fact that the South African government have made great strides in providing basic services close to three decades, but challenges in some areas remain and as pointed out by (Houston and Kanyane,2022). Service delivery failure is linked to a range of factors including poor governance, institutional as well as financial weaknesses such as the poor revenue collection (Houston and Kanyane, 2022).

12.2.7 Institutional environment

The morale of municipal officials was found to be extremely low and the overall performance of employees as well as institutional performance as poor. This negative institutional environment is caused by several factors such as lack of resources, infrastructure, recruitment of unqualified and unskilled staff, high vacancy rates, and lack of incentives as well as political instability. The problems are experienced on four fronts.

Leadership: Poor leadership resulted in fostering antagonistic institutional culture which impacted directly on the ability of senior officials to perform their oversight functions. Political appointments in leadership position create frustration among staff but also division between the administrative and political functions of the municipality.

Financial management: Municipal officials indicated that the institution has the culture of contracting external consultants and that this practice should be restrained because study participants felt that most municipalities have budget constraints and are unable to pay service providers on time. Consequently, officials felt that there are risks that the municipality might be unable to pay their own salaries. Budget constraints make it difficult to implement training and capacity building interventions and the lack of training negatively influence the staff morale as well as the general institutional environment.

Regulatory environment: The rigid regulatory framework impacts negatively on creative thinking and problem solving of officials and it leads to institutional inertia whereby municipalities cannot be agile in their institutional responses to emerging development needs.

Consequence management: The lack of consequence management in municipalities is a major concern and can be attributed to an inadequate institutional environment and culture, as well as skilled leadership. Since consequence management is not sufficiently implemented this leads to low morale, high staff turnover and low-quality service impacting on the ability of the municipality to deliver basic services (Houston and Kanyane, 2022).

12.2.8 Infrastructure and work tools

The present study showed that municipal officials were more positive about their work environment and their performance in municipalities in instances where ICT infrastructure was upgraded. The officials felt that the ICT infrastructure improved the communications among staff within the municipality, with other government departments as well as with their communities. A municipal official indicated that their operations are hugely improved now that they use automated clock-in registers, which allow workers to clock-in on site. If training is not implemented together with the provision of new tools municipal officials will struggle to optimally use the new digital resources. Those municipal officials that were more negative about their resources and work tools strongly felt that municipalities must do more to improve internet connectivity problems and maintenance of equipment and machinery (Houston and Kanyane, 2022).

12.2.9 Community engagement

The biggest drawback is that most municipal officials regard community engagements a mere compliance exercise and are less concerned about the well-being of the community they serve. Effective community engagement is further hampered by political representatives who fail to keep to their community commitments. Community members are therefore often distrustful and dissatisfied with the leadership of municipalities. The municipal officials also felt that a lack of strategic planning and good leadership negatively influence cooperation and integration among the various municipal duties and structures around community engagement functions. Besides the various departments, alignment between departments were found to be lacking. Municipal officials found that over-regulation and political interference often detract municipal officials from focusing on community engagements. As result the Integrated Development Plans of the municipalities

often do not address the needs of the community members in an effective way (Houston and Kanyane, 2022).

12.2.10 Implementation of HRD interventions

The implementation of skills plans, and capacity building interventions is a problem as it undermines the development of municipal officials and the overall performance of municipalities. invitees. There is a lack of coordination and management of HR activities. There is a need for skills alignment in each department and clear guidelines guiding skills and capacity development. This confirms the study done by Cloete (2016) that municipalities face a plethora of integrated challenges in the area of effectively and efficiently implementing workplace transformation.

12.3 Integrated Management Framework for Human Resource Development

The temptation in many organisations is to consider training as the only solution to solve complex organisational problems. In the field of HRD a paradigm shift, albeit incremental, is taking place to consider HRD as going beyond just offering training to “fix” employees. The 70/20/10 approach to development holds that 70% of development (knowledge creation) occurs through providing on- the-job exposure that involves knowledge workers working on tasks and problems, 20% the result from feedback from others through coaching and mentoring and 10% through structured formal training. Although training is considered the most common tool for development, it was found to be the least effective (Jennings and Wargnier, 2011; Sewell, Venter and Masson, 2015).

The IMF-HRD is a knowledge based implementation framework and refers to the degree of joint efforts by multiple departments in a municipality to create an innovative HRD culture for managing HRD effectively in municipalities. It is about establishing joint policies, the organisation of the HRD function that is delegated to line departments, innovative HRD practices that involves the application of formal and informal options to learning, the degree of internal democracy and stakeholder support that is based on the sharing of resources (Cloete, 2016) as illustrated in Figure 7.



Figure 7: Integrated Management Framework for Human Resource Development (Cloete, 2016)

In the IMF-HRD model the relationship between the HRD policies and practice is made explicit. For the municipal council (the employer) the policy sets in place a long-term vision that supports the strategic drivers of the municipality (the IDP) and prepares the municipality for the current and future competency needs. The functional organisation of HRD is organised within the directorates, which leads to better communication between the organisational actors. The HRD practice is hence approached from a multidimensional level (Cloete, 2016). Internal democracy is enhanced through the participation of employees in their own development. The employees are engaged and motivated to go beyond the confines of their job descriptions, which results in an increase in motivation and productivity by employees, which in turn leads to an improvement in employee morale. The value of stakeholder support is experienced on two levels, namely internal and external support. The stakeholders are all committed to continuous improvement by supporting the HRD efforts of the core organisational actors. This is a result of the development culture that continuously questions current existing HRD practices. The external stakeholders recognise that each stakeholder brings to the table knowledge and experience that is beneficial. The shared service model is hence premised on the pooling of HRD services, which is beneficial to specifically the organisational actors (Cloete, 2016).

12.4 Municipal Staff Regulations (MSR) and the implications for KM

The MSR has far reaching implications for knowledge management and capacity building within the local government sector. The South African Constitution enjoins municipalities to employ competent (knowledge, skills and attitudes) staff for the effective performance of their functions in order to fulfil government' commitment to build a capable local government and improve sound governance in municipalities. The Municipal Systems Act

goes further and obligates municipalities to develop and adopt appropriate systems and procedures to ensure fair, efficient, effective, and transparent personnel administration to ensure effective delivery of the mandatory services to communities (CoGTA, 2022).

The MSR (Figure 8) was introduced in 2021 with the intent to create local government that is fair, efficient, effective, and transparent. The objectives of the latter is to create development-oriented human resource management and career development practices, ensure that high standards of professional ethics are nurtured within local government and to strengthen the capacity of municipalities to perform their functions by recruiting and appointing suitably qualified and competent persons and establishing a cohesive HR management system that ensures adequate controls (MSR, 2022). The MSR calls on managers to play a much more central role in creating an enabling human resource management environment through a mandatory human resource plan. In the new HR regime managers perform human resource functions and cannot delegate this to HR departments as was so indicative of past practices. The MSR regulates and integrates the appointment of staff, the development of staff as well as performance management of staff. The MSR introduce a competency framework for various occupational skills that will ensure that competent staff are employed in local government to ensure that higher levels of service delivery is achieved in municipalities. It also introduces a complete new human resource development governance regime to be integrated with knowledge management practices (Interview Roets, 2023; Interview Matolengwe and Sibeko, 2022).

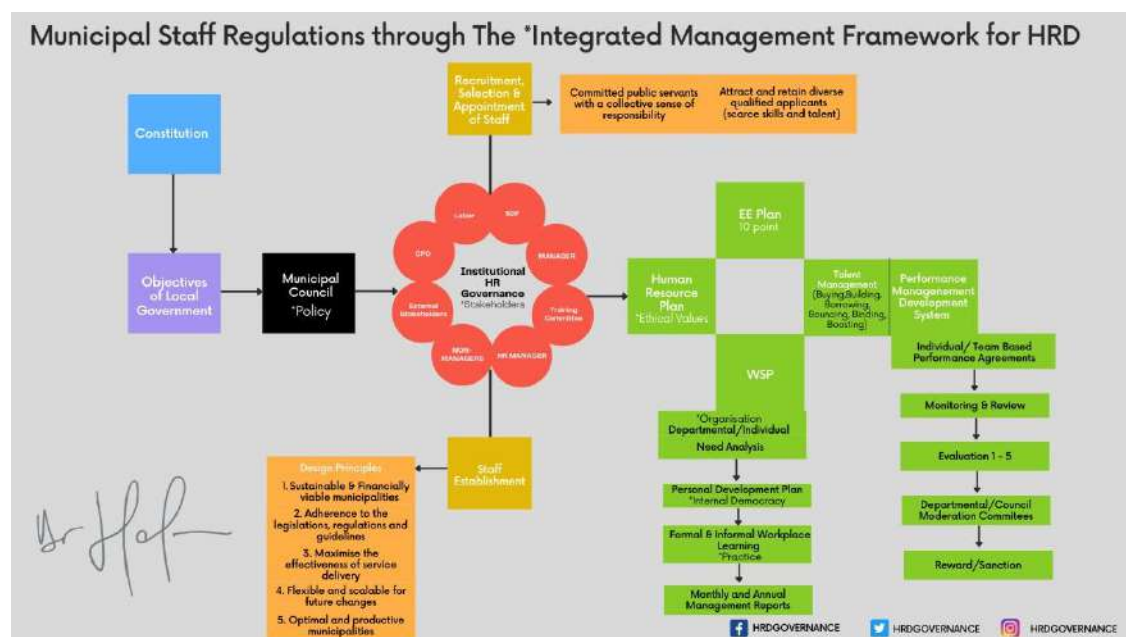


Figure 8: Municipal Staff Regulations through the Integrated Management Framework for HRD

13 CHALLENGES OF KM IN LOCAL GOVERNMENT

As mentioned earlier in this review, all development is local. For the sustainable development goals (SDGs) to be realised, several wicked problems impact the local government sphere. These problems relate to capacity development and institutional building aimed at increasing the technical and managerial competencies of elected and appointed local government officials. It also includes the development of competencies across the municipal strata and KM system to ensure that institutional knowledge is maintained (Reddy, 2016). Another problem is KM in itself. Municipalities are not accessing local data effectively to measure progress and communities are blind to the local impact in terms of service delivery. In many instances, data at the local level are not often readily available to support planning and monitoring the impact of local development. This hampers the ability of municipalities to improve decision-making and alignment with the SDGs (Reddy, 2016).

Organizations in particular municipalities, are characterized by rigid organizational structure, dominated by hierarchical dependencies, and compliance issues that often discourage employees from engaging in creative conceptual work. The structural functioning of local government gives rise to the routine performance of activities and hinders the adaption to the complex environment that demands a greater degree of flexibility and adaptiveness. Another issue impeding the implementation of KM often is the issue of continuity and the temporality of holding managerial posts resulting from the periodicity of local elections which often creates political and administrative instability (Możdżeń, 2011, as cited in Kuras and Kuras, 2015). The centralized and hierarchical structure in local government more than often is a hindrance that is characterized by cultural conservatism. The system is designed to reward the behaviour oriented towards following the procedure and not achieving the result or solving the problem. This does not positively influence the willingness to acquire new knowledge and share it with co-workers (Mazur, 2008).

In many public sector organizations and more specifically in municipalities, the organizational culture favours the accumulation of knowledge at the individual level. There appears to be a general lack of competence, knowledge, capabilities and incentives for teamwork. In many instances, the unwillingness of employees to share knowledge is connected with the fear of loss of employment. It is thus not strange to find employees who possess the knowledge to use this as the source of advantage over other employees and, at the same time, provide themselves with guaranteed employment. The latter may fear that sharing knowledge and expertise with others may make their job obsolete. The

inappropriate organizational culture and inadequate human resources management may contribute to employees' unwillingness to share knowledge (Zhou and Li, 2012). More attention should be directed at creating an organizational culture based on teamwork and mutual trust among employees to mitigate this risk (Kuras and Kuras, 2015).

According to SALGA (2019), the high turnover of technical and professional staff and limited resources require that risk and cost must be managed effectively to provide the best development impact. In addition, as confirmed by the AG (2020), the dependence on consultants leaves the municipality vulnerable since having to re-purchase advice and intellectual property. Municipalities can also not deliver on the core set of critical municipal services such as poor financial management, poor audit outcomes and corruption and fraud. This leads to poor quality of work, poor services and products, repeat work/duplication efforts, longer times to locate relevant materials, insufficient use of funds and resources, and loss of institutional memory. The lack of skills, particularly technical skills, including KM skills, remains one of the critical problems facing South Africa. Consequently, the quality of products and services rendered by these Knowledge Managers cannot be guaranteed and the value creation as promised by ISO 30401 cannot be realised (KMSA, 2022).

Having identified some of the problems, the benefits of KM are expounded.

14 BENEFITS OF KNOWLEDGE MANAGEMENT FOR LOCAL GOVERNMENT

Kuraś and Kuraś (2015) argue that KM has both internal and external benefits for local government. Amongst the internal benefits are improvements in the quality of the operation of public institutions in the dimension of the economy, efficiency, responsiveness, transparency, and accountability. Secondly strengthening the ethos of public service and changing the organizational culture of public institutions.

The external benefits of knowledge management are strengthening the capability of the state to control development processes and increasing its capabilities to affect decisions. This includes creating and developing accurately addressed policies and public programmes, increasing trust in public institutions, and accelerating participation in co-governing based on partnership, autonomy, and subsidiarity principles.

An effective KM system can thus improve accountability through effective management of information to make informed decisions, increase levels of collaboration internally and externally, improve partnerships with stakeholders, capture the knowledge of retiring employees and retain the institutional memory of the municipality. This leads to increase efficiency, better responsiveness, enhanced decision-making, greater accountability, reduced costs, motivated staff, good governance and improved service delivery (SALGA, 2018).

Among the further benefits of gaining new knowledge is the possibility of solving problems that could not be explained before, faster and/or better implementation of tasks or satisfaction with the possessed knowledge. This influences an increase in employees' motivation and self-esteem. In turn, the person transferring knowledge finds recognition and prestige among other members of the organization. They may also take pleasure in contributing to its development and expect to be given a financial or non-financial reward for undertaking activities connected with knowledge-sharing and problem-solving (Rudawska, 2013).

In conclusion, KM leads to the local government's possible improvement in the following ways:

- **Decision-making** – by exploiting and harnessing global knowledge, lessons learned and good practice;
- **Service delivery** – by enabling innovation, productivity and problem-solving;

- **Efficiency** – by sharing knowledge and learning, hence shortening the lag time between ideas and implementation, and making information accessible, which reduces costs;
- **Responsiveness** – by increasing the quality and speed of communication between employees and managers as well as with the public;
- **Learning** – by creating the opportunity for employees to develop their skills, performance, and experience, thereby building employee satisfaction and motivation;
- **Institutional memory** – by preserving, developing, using, and sharing knowledge, which is not lost when experienced employees leave;
- **Democratic governance** – by providing accessible information to the public who feel more connected and involved with governance systems; and
- **Accountability** – by ensuring transparent, open systems that reduce the potential for corruption and unethical behaviour (SACN, 2013; Helander, Paunu and Hellsten, 2022).

Effective knowledge sharing is subject to a change in the mentality of employees and creating a favourable atmosphere to enable the free flow of knowledge in an organization (Suchodolski, 2015).

15 KNOWLEDGE MANAGEMENT STAKEHOLDERS

Several supporting organisations are active in the local government space. This includes non-governmental organisations, academic institutions, and government agencies. The focus in this section was to identify the organisations actively participating in the knowledge management arena. The list is by no means exhaustive but rather a first attempt to identify the key local government knowledge management role players globally, on the continent and specifically in South Africa.

15.1 The World Organization of United Cities and Local Governments (UCLG)

The UCLG is a global network of cities, local, regional, metropolitan governments, and their associations. The organisation is committed to representing, defending, and amplifying the voices of local and regional governments to leave no-one and no place behind. The organisation does this through collaboration, dialogue, cooperation, and knowledge-sharing. This is achieved through 5 programs areas viz,

1. Strengthening the UCLG network - This is achieved through enhancing political participation, creating new tools for synchronized action, renewing partnerships with different actors, and ensuring shared ownership across the membership.
2. Policy and Advocacy - This involves making proposals concerning the role and perspective of local and regional governments on the definition of the next phase of the global development agendas and increasing national and international support and recognition for the role of local and regional governments in the implementation process.
3. Implementation - The aim is to identify and foster efforts by our membership to achieve the global agendas at the territorial level.
4. Learning - This is achieved through training and creating a learning (knowledge sharing) culture throughout the organization and promoting decentralized cooperation as a key tool of international cooperation and development programmes.
5. Monitoring and reporting - The aim is to ensure that local and regional experience influence the implementation and assessment of the global agendas, by contributing to local and regional governments' storytelling (knowledge sharing) and informing the reporting done by national governments (<https://www.uclg.org/en/organisation/about>).

15.2 United Cities and Local Governments of Africa (UCLGA)

The African chapter of UCLGA has as a vision of Building African Unity and Driving African Development through the Grassroots." The accompanying goals of the organisation are outlined as follows;

- Unite African local government; place it in the continental political and economic development context and represent it in all relevant forums.
- Strive for the establishment of local government as a distinct sphere of government working in support of national and other spheres of government in Africa.
- Ensure democracy, equality, and respect for human rights at the local level.
- Promote sharing of human and intellectual capital as well as other resources among local authorities in Africa.
- Empower local governments through research, training, and capacity development.
- Pursue sustainable development in partnership with institutions, structures, and programs of the same mission.

In addition the UCLG through the Corporate Learning and Knowledge Management pillar offers capacity building programs specifically around local economic development and provide officials with access to best practice and knowledge resources in order for them to be in a better position to deliver on their political and administrative mandates (<https://www.uclga.org/who-we-are/>).

15.3 The African Capacity Building Foundation (ACBF)

The ACBF is the African Union's specialized agency for capacity development and knowledge sharing. ACBF is considered the repository for expert knowledge to facilitate the implementation of continental and national development agendas. The organisation has produced large volumes of cutting-edge research (knowledge) that is available to member states on the various digital platforms. The organisation has further built up an extensive knowledge gathering experience mainly as a result of its strong human resource base and partnerships to achieve their short and long-term development objectives. The organisation can be considered a key facilitator to achieve the vision of an Africa capable of achieving its own development through producing evidence-based knowledge for capacity development (<https://www.acbf-pact.org/who-we-are>)

15.4 Department of Co-operative Governance and Traditional Affairs (CoGTA)

The legislative mandate of CoGTA is to develop national policies and legislation with regard to local government and to monitor, inter alia, the implementation thereof. This includes the mandate to build a capable & effective local government through the District Development Model (DDM). In this regard CoGTA has committed to work collaboratively with SALGA and the LGSETA for coordinating support, capacity building and training initiatives to ensure that the necessary impact is realised through the Integrated Local Government Capacity-Building Strategy. The strategy is to be developed and implemented across municipalities over the next 5 years and aims to build institutional resilience through system development, capacity building and revenue management to meet SDG 16 as identified earlier in the text. In addition to this, CoGTA is committed to integrated KM recognising that the participation and involvement of all three spheres of government as well as citizens (indigenous KM systems) is critical to planning and implementing better. This will ensure accountability and good governance that will lead to sustainable service delivery to local communities to achieve the desired outcomes and impact (CoGTA, 2022).

15.5 The Local Government Sector Education Training Authority (LGSETA)

The Local Government Sector Education and Training Authority (LGSETA) was established in terms of the Skills Development Act, of 1998. The mission of the LGSETA is to build local government's ability to meet its developmental needs through innovative approaches, effective capacity-building and strategic partnerships.

It provides an environment to facilitate the training and up-skilling of various employees and people involved in local government structures and unemployed South Africans. The LGSETA can be considered a key KM facilitator. On an annual basis, the LGSETA collects data (the mandatory work skills plan that municipalities submit to the authority). Officials then analyse the data (by identifying the critical and scarce skills per district and province – giving rise to the Sector Skills Plan - information). The sector skills plan identifies interventions, e.g., bursaries, training programs, and mentorships (knowledge) for the LGSETA to make a greater impact (wisdom). It is for this reason that the LGSETA can be considered an authority on human resource development and KM in South Africa (<https://lgseta.org.za>, Cloete, 2019).

15.6 The South African Local Government Association (SALGA)

The South African Local Government Association is the independent association of municipalities recognised in terms of Section 163 of the constitution. The organization is driven by six mandates, namely:

- Lobby, advocate and represent;
- Employer body;
- Capacity building;
- Support and advise;
- Strategic profiling; and
- Knowledge and information sharing.

The organization actively engages in information and knowledge sharing with its members through building a comprehensive hub of local government knowledge to ensure the better municipal performance of its members. To further this mandate, SALGA produced a Local Government Knowledge Management toolkit to build and strengthen local government capacity in KM. The toolkit offers a comprehensive guideline for municipalities and a toolset to implement KM in municipalities (SALGA, 2018).

15.7 Knowledge Management South Africa (KMSA)

Knowledge Management South Africa (KMSA) exists to advance KM thought leadership in South Africa by building strong and engaged KM practitioners. KMSA is an accredited body, which awards designations according to SAQA processes and facilitates the definition of KM competency framework to support the KM professionalization effort and to build personal knowledge capability, which guarantees the quality of KM managers, as well as to support the high-level of the reputation of the profession. In addition, KMSA aims to convert this professionalisation opportunity into sustainable portfolios and partnerships with SAQA, academic institutions, corporates (particularly recruiters and learning and development) and KM Service Providers. According to KMSA knowledge is considered an essential prerequisite for sustainable competitive advantage and development, particularly as a necessary component for the maintenance of products and services.

KMSA proceeded to develop a KM competency framework for South Africa. The competency framework defines the behavioural and core competencies (core KM competencies). It further acknowledges and recognises recognition of prior learning (RPL) in a way that facilitates KM career paths and supports continuous professional development.

The KMSA Competence Framework seeks to create a single repository to accomplish the following five outcomes:

1. Facilitate the administration of a single, integrated professional designation framework for the KM profession in South Africa.
2. Provide standards and practices for the desired behaviours and required skills and competencies for the KM profession.
3. Encourage ethical, professional, and social responsibility and accountability within the KM profession.
4. Create certainty about the quality of professionals, making it easier for KM professionals to access and progress through education, training, and career paths. This includes the integration of prior experience they have gained in the workplace.
5. Establish a common competency framework to which human resource management activities, including recruitment and selection, performance management, training and development, and succession planning can be aligned.

15.8 South African Cities Network (SACN)

The South African Cities Network (SACN) was established in 2002 as a network of South African cities and partners that encourages the exchange of information, experience and best practice on urban development and city management. The organization is involved in the areas of research, knowledge sharing, peer learning and innovation to promote good governance and management in South African cities. Amongst others, SACN also collects, collates, analysis, assesses, disseminates, and applies the experience of large city government in a South African context and promotes shared-learning partnerships between different spheres of Government to support the management of South African cities.

A Knowledge Management Reference Group (KMRG) was conceptualised in 2005 to promote a shared-learning partnership around KM in South Africa's municipalities in support of their good governance. This initiative was underpinned by the acknowledgement that municipalities require deliberate KM competencies to enhance efficient and effective service delivery. The KMRG members are the SACN member cities (Johannesburg, Tshwane, Cape Town, eThekweni, Ekurhuleni, Buffalo City, Msunduzi, Nelson Mandela and Mangaung), SALGA and SACN (participating both as members and facilitators). Additional members include the Sedibeng and Greater Sekhukhune District Municipalities, the Gauteng Provincial Legislature, and the national Department of Cooperative Governance

In short, the KMRG focuses on:

- Sharing knowledge and providing peer support between members
- Promoting common KM platforms for cities and municipalities
- Discussing practical KM approaches and experiences
- Leveraging synergies through collaboration and resource sharing
- Serving as an advocacy and lobbying platform
- Being a conduit for knowledge dissemination and exchange (<https://www.sacities.net/who-we-are/>; SACN, 2013).

15.9 Municipal IQ

Municipal IQ is an independent privately owned entity. It offers a web-based data and intelligence service that specialises in the monitoring and assessment of the 257 South African municipalities. The latter quantifies the performance of South African municipalities on a range of indices and monitors which allows for benchmarking municipalities and comparing performance. The organisation endeavours to produce cutting-edge research which accurately reflects what is happening in individual municipalities based on data trends (<https://www.municipaliq.co.za/index.php>).

15.10 Municipal Institute of Learning (MILE)

The Municipal Institute of learning (MILE) is a knowledge management initiative of the eThekweni Municipality. The intent of MILE is to position Durban as a centre of learning (and sharing) globally. The mission is to engage thought leaders, experts and policy makers that help shape universal development agendas by maximising the benefits of partnerships through creating platforms to share expertise, knowledge, experiences, resources and insights from government, international development organisations, civil society, business, and academia from around the world.

The overall objectives of MILE are as follows:

- To provide municipal technical and strategic planning support to local government associations, municipalities and sub national governments in Southern Africa and the global south at large.
- To embed, mainstream and implement KM initiatives in the eThekweni Municipality; create awareness and promote knowledge management across all government organizations.
- To strengthen and enhance the capacity of local, district and metropolitan municipalities to deliver on their core constitutional mandates.
- To advance the city's collaborative and strategic research partnership with academia and industry
- To establish and maintain partnerships and networks; mobilize funding and resources thus ensuring that MILE becomes self- sufficient, sustainable, and resilient.

MILE has hosted several master classes, learning exchanges, workshops, seminars, colloquia, symposia, and conferences on several cross-cutting disciplines. As a contribution to knowledge management in local government, MILE has hosted KM

Learning Exchanges on an annual basis since 2013. Some of the themes that have covered recently include, understanding and implementation of KM practices, KM in the era of the COVID 19 Pandemic and KM Systems to meet Africa's SDGs.

In the delivery of these learning interventions, MILE has partnered with SALGA, SACN and KMSA. Various thought leaders and speakers have presented in these events and were drawn across government departments and associations, academia, business, and organized civil society. MILE contend that KM is essentially about influencing operational efficiency and service delivery in the broader public sector. The outcomes of the learning interventions is the understanding that KM is a process that will help municipalities acquire, create, organize, package, share, store and use knowledge to advance service delivery, good governance, public participation, financial viability and institutional agility. In addition, MILE has created platforms for local government to share their rich and diverse KM journeys and experiences. MILE also considers itself as a viable and key strategic partner for KM in local government (Interview, Fezile Njokweni, 2023)

The study also note the existence of other knowledge sharing bodies and platforms such as the Dullah Omar Institute at the University of the Western Cape, Local Government Resource Centre at the Development Bank of South Africa, the Local Government Support Centre at the Nelson Mandela Metropolitan University as well as the Great Governance ZA, a weekly knowledge sharing podcast.

16 CONCLUSION

Considering the international and local literature and the views of a wide range of scholars, it is concluded that implementing KM in organizations is not an easy task given the VUCA environment confronting organizations. Institutionalising KM specifically in organizations and more specifically in local government is critical to ensuring the efficient and effective implementation of government programmes. Organizational-wide leadership, culture, structures, processes and an awareness of organizational politics all influence the effective implementation of an effective KM system in organisations.

SECTION 3: RESEARCH METHODOLOGY

1 INTRODUCTION

This section presents the methodology, followed by the research results and finally concludes with the recommendations and examines the challenges debilitating the effective implementation of Knowledge Management in the local government sector. The primary and secondary research objectives are highlighted, this is followed by the introduction of the project research team, research strategy and research approach as well as the project scope and phases. The research results and findings are discussed together with recommendations and the conclusion.

2 PROJECT OBJECTIVES

The primary and secondary research objectives were previously highlighted but repeated here for ease of reference.

2.1 Primary objective

Knowledge Management (KM) in the Local Government Sector

2.2 Secondary objectives

- Explore investigate the concept of Knowledge Management in the local government sector.
- Determine the approaches applied in Human Resource Management regarding knowledge distribution.
- Investigate the models for the distribution of tasks across the organization.
- Analyze the standardization of knowledge and the preservation of knowledge in the local government sector.
- Investigate the role of Knowledge Management in improving service delivery areas in the local government sector.
- Explore the international and regional best practices in the application of Knowledge Management in the local government sector.
- Investigate the availability of Knowledge Management frameworks and practices in the municipalities.
- Establish if the organizational culture and policies enable effective implementation of Knowledge Management practices in the local government sector.

- Examine the challenges debilitating the effective implementation of Knowledge Management in the local government sector.
- Recommend strategies that can enhance Knowledge Management in the local government sector.
- Identify implications for skills development and capacity building within the local government sector.

3 RESEARCH STRATEGY

The research approach included both primary and secondary data collection methods, inclusive of both quantitative and qualitative research methodology. The project covered municipalities in both inland and coastal areas. The goal was to conduct as many in person meetings.

4 PROJECT APPROACH

A consultative approach was adopted that involved a wide array of industry experts in the design and roll-out of the project. The consultative approach ensured that experts in the field became involved in the design of the project. The experts consulted ranged from governance experts to local government practitioners and interactive sessions were held with to;

- Pinpoint the most suitable research design and methodology;
- Surveying literature on international best practice on knowledge management models;
- Surveying literature on international best practice regarding planning praxis in general and KM planning in particular;
- Identify critical elements they perceived as essential to include in data collection instrumentation;
- Set the desired climate for the project; and
- Establish monitoring, control and reporting mechanisms between the researchteam, field workers and the client

5 ORGANISATIONAL READINESS

Prior to the roll-out of the project, a letter was drafted to the 26 random selected municipalities and municipal entities explaining to them the purpose, nature, scope, and importance of the project. A letter was also obtained from the LGSETA for the municipalities to agree to participate in the study. This was considered a necessary step to create a positive climate for the project and to give the research team the necessary credibility and legitimacy to conduct the fieldwork. This process of communication and encouraging participation continued throughout the project until the completion of the data collection phase (See Annexure 1 - this process took 21 working days and recommendation in this regard is made).

6 PROJECT SCOPE AND PHASES

The scope of the project was to obtain a representative sample of senior and middle managers in South African municipalities. A national survey was thus conducted in metropolitan, district, local and municipal entities to obtain a comprehensive perspective around the KM in the local government sector (See Appendix A).

The research process followed is depicted in Figure 9.

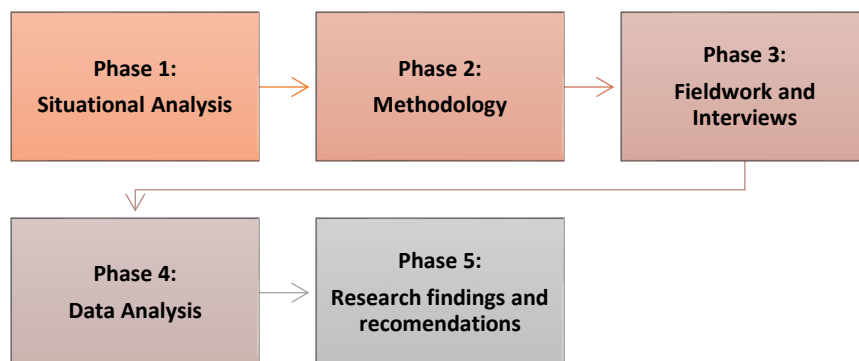


Figure 9: Project Research phases

6.1 Phase 1: Situational Analysis

There were five main activities undertaken during this phase that is aligned to the secondary research objectives:

- The literature review to determine what KM is and unpacking the concept KM.
- To contextualize KM in the SA governance framework through consulting key informants
- To identify the major KM role players that are active in South Africa
- To determine the best implementation framework for KM in SA
- To identify peer departments to assist with implementation of KM in SA local government.

6.2 Phase 2: Methodology

A mixed methods research approach was applied in this study. This allowed the researcher to obtain a holistic and in-depth understanding of the phenomenon through both qualitative and quantitative methods of data collection. Research participants at each municipality comprised of a combination of executive, senior managers, and middle managers. For the development agencies the picture was the same. The selection of this population was underpinned by the management hierarchy and functions performed by them. This study's data collection instruments are informed by the concurrent research design, which included document analysis (literature review), focus groups (qualitative) and questionnaires (quantitative). The focus group discussions were conducted with the same group that completed the questionnaire.

The selected research approach was informed by the nature of the research problem and the aim of the study, which was to explore the implementation of knowledge management in the South African local government sector. This allowed the researchers, through a process of inquiry, to analyse, investigate, explore, describe, and explain the phenomenon being explored (Rahman, 2005:104). Moreover, this research approach was deemed appropriate because it allows the researcher to obtain a holistic and in-depth understanding of the phenomenon through both qualitative and quantitative methods of data collection.

The unit of analysis in this research include the municipalities and municipal entities in the South African local government sector.

A total of twenty-six municipalities were identified and one municipality withdrew from the study. In total 76% of the research was conducted in person and 24% online. In total 96% of the research sample completed the questionnaire and 76% participated in the focus groups. A cross section of managers (senior and middle managers) completed the questionnaires and in some cases participated in the focus group discussions, see below.

Table 2: Unit of Analysis Summary

Institution	Province	Status	Questionnaire	Focus Group
Tswane Metro	Gauteng	Completed online.		X
Buffalo City Metro	ECape	Completed online	X	
Joe Gqabi DM	ECape	Completed in person	X	X
Winnie Madikizela-Mandela LM	ECape	Completed online	X	
Alfred Nzo Development Agency	ECape	Completed online	X	
Mandela Bay Development Agency	ECape	Completed in person	X	X
Tswelopele LM	Free State	Completed in person	X	X
Mantsopa LM	Free State	Completed in person	X	X
Sedibeng DM	Gauteng	Completed in person	X	X
Emfuleni	Gauteng	Completed in person	X	X
Ekurhuleni Housing Company	Gauteng	Completed in person	X	X
Musina	Limpopo	Completed in person	X	X
Steve Tshwete	Mpumalanga	Completed in person	X	X
Thaba Chweu	Mpumalanga	Completed online	X	
Moretele LM	NWest	Completed in person	X	X
Naledi LM	NWest	Completed online	X	
Jozini LM	KZN	Completed in person	X	X
Ray Nkonyeni LM	KZN	Completed online	X	
Namakwa DM	NCape	Completed in person	X	X
Sol Plaatje LM	NCape	Completed in person	X	X
Cape Winelands DM	WCape	Completed in person	X	X
Cape Agulhas LM	WCape	Completed in person	X	X
Mossel Bay LM	WCape	Completed online	X	
Ubuntu LM	NCape	Completed in person	X	X
Cape Town Stadium	WCape	Completed in person	X	X

6.3 Phase 3: Fieldwork and interviews

Phase three entailed setting up the site visits to the municipality to conduct the focus group interviews as well as the completion of the questionnaire in person. A total of twenty-six municipalities were identified and one municipality withdrew from the study. This equates to 76% of the research that was conducted in person and 24% online. In total 96% of the research sample completed the questionnaires and a further 76% participated in the focus groups. This proved very challenging as municipalities are involved either with the adjustment budget and or the IDP processes, this hampered participation in some instances (a recommendation in this regard is made).

6.4 Phase 4: Data Analysis

The data was transferred from google forms onto excel spreadsheets and the responses recorded on the statistical software SSP. In some municipalities the data was recorded on an electronic device and some participants preferred to complete the municipalities prefer. A four-point scale was used where participants indicate whether they agree, partially agree, don't know/not sure or disagree with the 40 statements. In this instance partially agree and don't know point to uncertainty in the understanding, interpretation, and application of KM in the local government sector.

6.5 Phase 5: Research Findings and Reporting

The final phase entailed the final verification and cross-referencing of the findings, the and the identification of key observations made by the research team during the process. This detailed report reflects the following:

- The current levels of KM in the municipalities and municipal entities, the known KM models, systems, and implementation tools (literature review as discussed in Section A) and
- A proposed implementation model for implementing KM in the local government sector with key recommendation from focus groups and key informants.

SECTION 4: RESEARCH RESULTS AND FINDINGS

Scientific theory and practice are deeply intertwined. During the process of creating evidence-based knowledge, theory cannot be divorced from practice. Thus, any scientific inquest can only be the result of a phenomenon observed in the reality of practice. Irrespective of the theoretical soundness of information needed, the statistical validity and reliability of any survey are co-determined by the influence of the following human traits:

- Respondents may not feel encouraged to provide accurate and or honest answers.
- Respondents may not feel comfortable providing answers that present themselves in an unfavorable manner.
- Respondents may not understand the content of the research questions.
- Respondents could experience a language barrier given that there are 11 official languages in South Africa and English is most participant's second language.
- Respondents may not have the time to complete a survey (Schutte,2023: Interview).

This section reports on the research results and interpretation of findings emanating from the survey, examining the challenges debilitating the effective implementation of KM in the local government sector. In analysing the data, the approach was to cluster the similar type of questions and to offer an analysis against the critical success factors for implementing knowledge management as described in the literature review in Section A.

The agree section of the graphs are present in green, the partially agree and the now sure/don't know responses in amber and the disagree in red.

This is presented under the following headings.

- Leadership
- Culture
- Structure
- Processes
- Technology

The triangulation of the data sets is presented by combining the quantitative and qualitative findings.

1 LEADERSHIP

Cluster 1 – Strategy

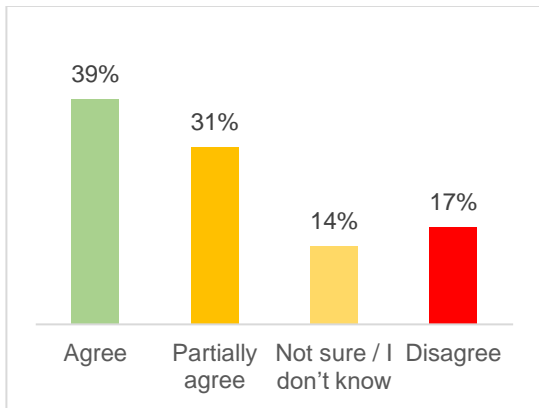


Figure 1: The municipality/municipal entity has a strategy that speaks to the importance of knowledge for the achievement of its objectives.

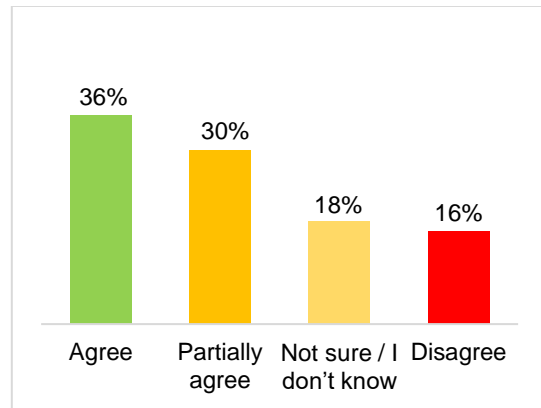


Figure 2: A strategy to create knowledge that aligns with the operational objectives to enhance customer value is present.

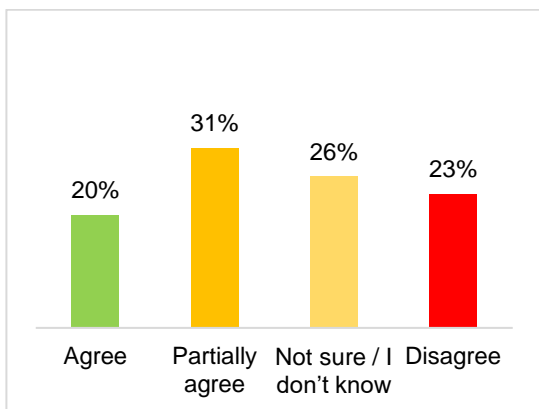


Figure 3: The advantage to be gained from exploiting external (customer, supplier, distributor, alliance and partner) knowledge is understood throughout the municipality/municipal entity

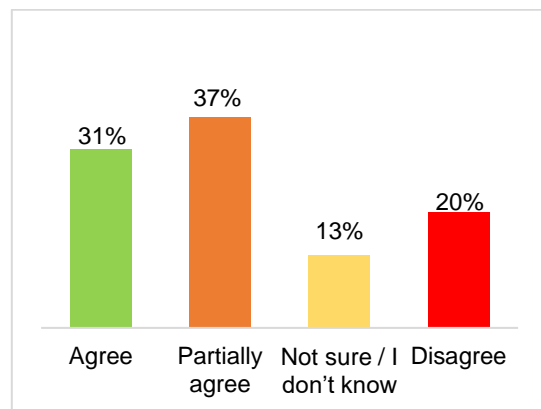


Figure 4: The knowledge strategy is not communicated to all levels by management

From the research findings (cluster of 2 questions) it is concluded that the participants are not sure whether the municipality has a knowledge management strategy in place as indicated by the high percentage of partially agree (31%) and the not sure/I don't know responses as well as the low agree scores. One participant indicated that management sometimes are guilty of not fully disclosing information and sharing knowledge. This was confirmed by another participant that indicated *that the municipality developed a KM strategy ten years ago, however the strategy is not applied.*

This pattern continues for the question; a strategy is in place that speaks to the importance of KM for the achievement of its objectives. This was confirmed in a focus group that stated *There is a need for sector heads to present their plans and have it critiqued and added to by other people. The IDP and the budgetary process was found to be the central knowledge sharing platform.* The research responses confirm that there is some understanding of KM as expressed in one focus group *“We may not consciously term it knowledge management, but by default.... if you were to combine all these things and consciously have a strategy now to infuse knowledge management in our municipality, it won't be difficult because we are doing it in bits and pieces”.*

The results indicate that the strategy is not effectively communicated to the employees with only 20% of the participants disagreeing that with the statement that the strategy is not communicated to all levels of the organisation. This was confirmed by the following statement *The bosses that we report to, do not speak the same knowledge management language that we do.* The high percentage of research participants that partially agreed (37%) and are not sure (13%) point to the inconsistency and uncertainty in understanding in communication. *Managers are sometimes considered to be reactive and not proactive* is how another focus group described management. The participants also reported that *frequent change in management impacts negatively on the organisational morale.*

Cluster 2 – Individual development

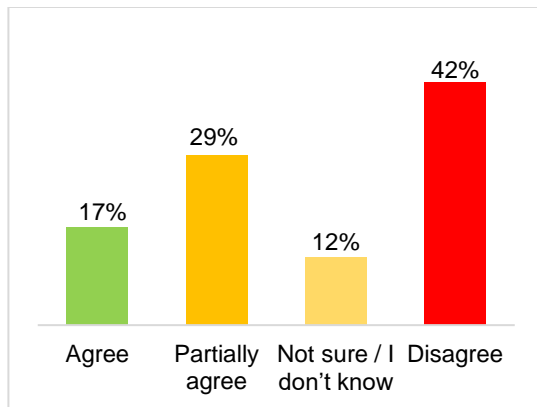


Figure 5: Skills development is not considered a key component of knowledge creation.

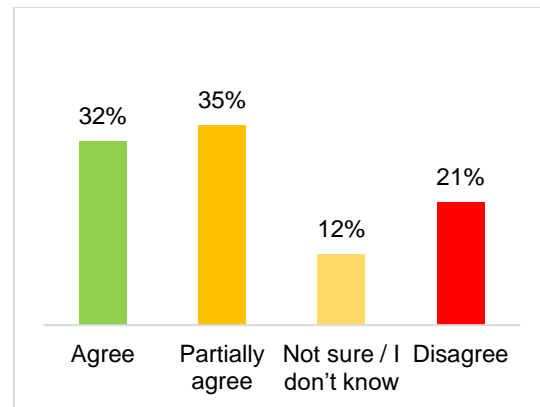


Figure 6: Opportunities are provided to apply newly acquired knowledge in the workplace.

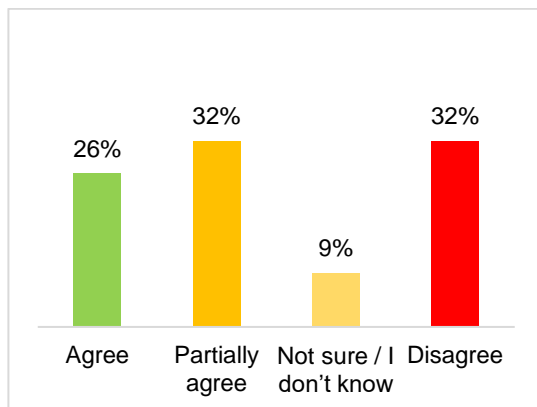


Figure 7: No formal and informal opportunities for sharing knowledge with fellow workers to encourage mutual learning are provided

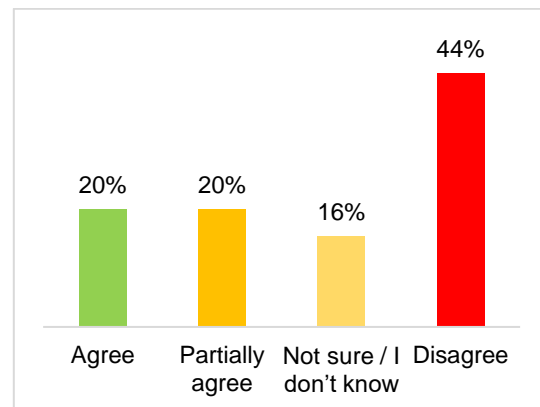


Figure 8: Employees are rewarded for their contribution to organisational learning (e.g., through regular feedback, employee recognition)

In this cluster of questions, the focus was on individual skills development, opportunities to apply new knowledge, opportunities to share knowledge and reward for contributing to organisational learning. From the research results it is concluded that most of the participants consider skills development as a key component of knowledge creation with 42% disagreeing with the statement. In a focus group discussion, it was reported that *There is also limited opportunities for development and a lack of upskilling of employees specifically for workers at the lower levels in the organisation.* The 29% of the participants partially agreed with the statement that again indicate the inconsistency and uncertainty. Opportunities are not sufficiently provided to apply newly acquired knowledge in the workplace as indicated by the low score of 32% of research participants that agreed with the statement. In this instance the 35% that partially agree with the statement is conclusive.

However, on the positive, management *in some instances encourage training to enhance and expand knowledge* as expressed by a participant. This pattern continues as indicated in Figure 6. It is clear from the research response in Figure 7 that employees are not rewarded for their contribution to organizational learning. Another group indicated that senior managers do not have a platform for consultations to ensure that information that is presented is well talked through and disseminated.

The overall scores indicate that there is a leadership/strategy problem in municipalities in the application, communication, and implementation of KM in municipalities. Although leadership was identified as a critical success factor for the implementation of KM, the research results confirm the contrary.

2 CULTURE

Cluster 1 – Communication

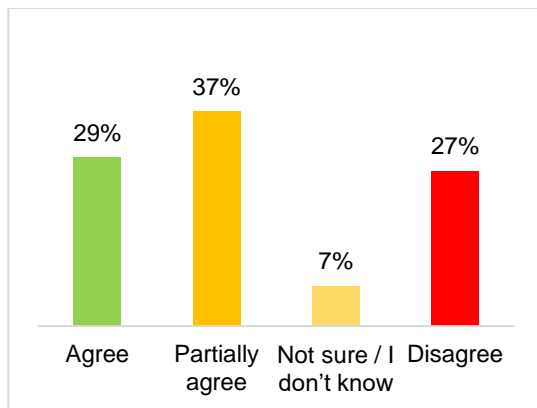


Figure 9: Knowledge and information are not communicated across departmental boundaries

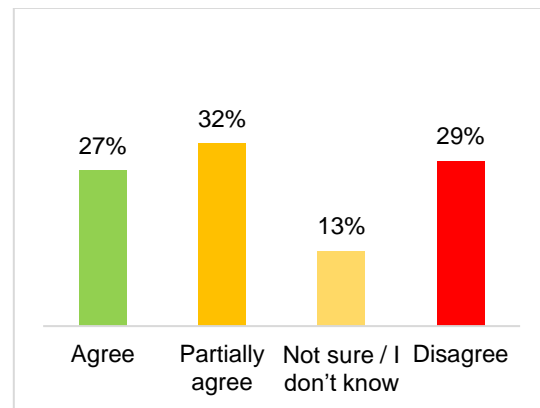


Figure 10: Joint knowledge development and sharing are standard practices between departments to create greater customer value

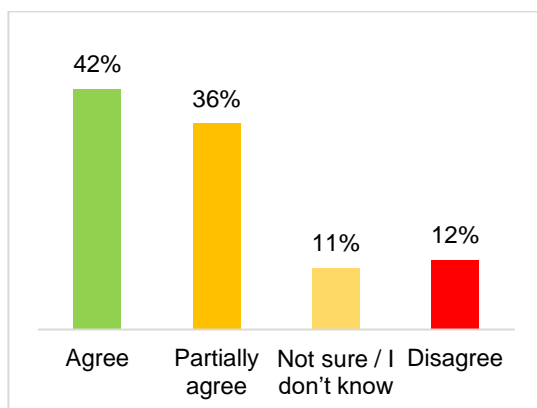


Figure 11: Communication is underscored by mutual trust and respect

This result indicate that municipalities are not communicating knowledge and information across departmental boundaries effectively. The high percentage (37%, 32%, 36%) of participants who indicated that they partially agree with the statements in relation to the agree responses as illustrated in Figures 9, 10 and 11 once again shows inconsistency and uncertainty on the part of the respondents. This was confirmed by a focus group respondent who stated, *a lack of inter-departmental sharing and the organisational silo mentality mindset is prevalent in the organisation*. This view was confirmed by another municipality pointing to a lack of cooperation between departments in terms of sharing of information. From the research findings it is concluded that joint knowledge development and sharing are not standard practices between departments to create greater customer

value which leads to communication not being underscored by mutual trust and respect as indicated in Figure11.

Cluster 2 – Application of knowledge

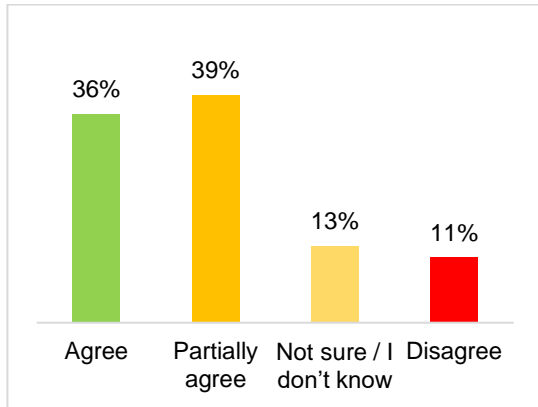


Figure 12: The municipality/municipal entity is committed to continually applying organisational knowledge to customer service improvement

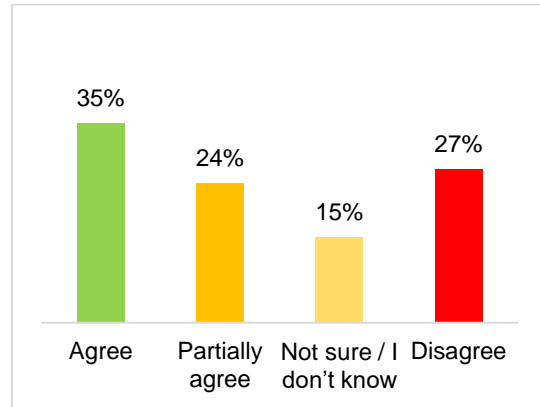


Figure 13: Sharing customer experiences with others is not part of the daily routine

The research indicates that the municipality/municipal entity is not committed to continually applying organisational knowledge to customer service improvement in that only 36% of the participants agreed with the statement. The fact that an even higher number (39%) partially agreed is of concern and point to uncertainty on the part of the participants. This point was confirmed by a focus group who indicated *a gap between sharing information between senior management and middle management*. From the research responses it is concluded that sharing customer experience with others is not part of the daily routine as indicated by 35% of the participants. The partially agree (24%) and 15% of the participants who do not know again points to inconsistency in terms of understanding in Figure13. The organisation is not committed taking customer experience to improve services as confirmed by a focus group; *The culture in the local municipality is “quite sick” and not reaching that goal*.

Cluster 3 – Management and knowledge sharing

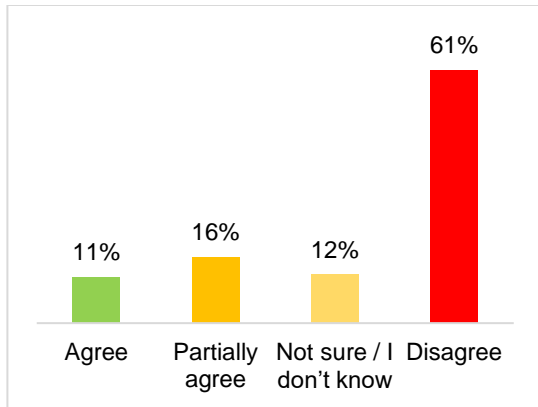


Figure 14: Management discourages the practice of information sharing

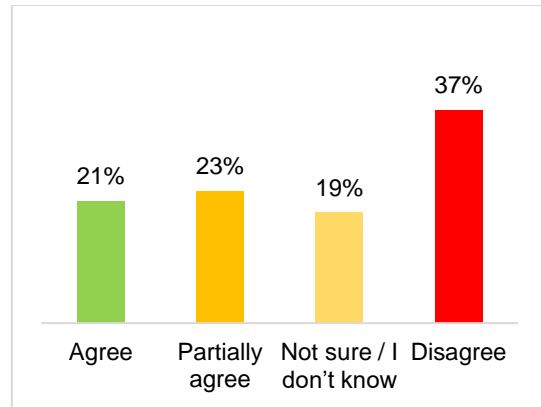


Figure 15: Management does not recognise knowledge-sharing efforts

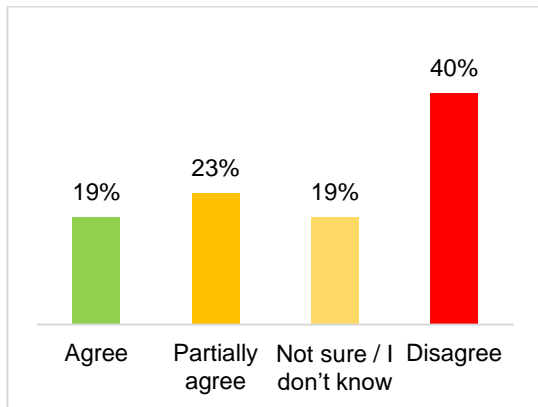


Figure 16: Management discourages knowledge and information hoarding

The research results show inconsistent application. In relation to the 37% of the research participants who disagreed with the statement management does not recognize knowledge sharing efforts, 23% (partially agree), 21% (agree) and 19% (not sure/don't know). This shows inconsistency. This was confirmed by a focus group that stated *managers are guilty of sharing knowledge on a need-to-know basis*. The conclusion is that management do not sufficiently recognise knowledge sharing efforts. Most of the research participants (40%) disagreed with the statement that management discourages knowledge and information hoarding. This said 23% of the research participants partially agreed with the statement followed by 19% who either agreed with the statement and 19% not being sure or did not know. This indicates a problem with knowledge and information hoarding as stated by a focus group, *managers are also guilty of not always sharing the service delivery successes and information*.

A knowledge management culture is absent in the local government sector.

Cluster 4 – Employees relations

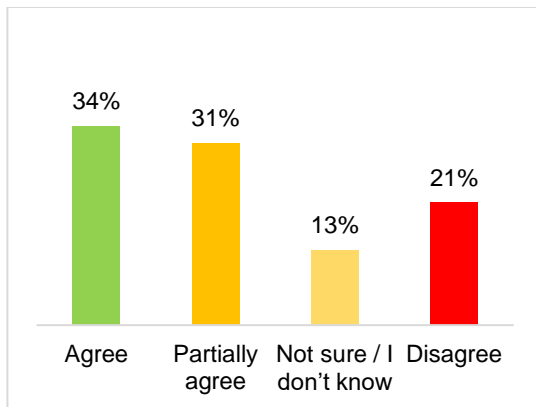


Figure 17: The physical work surrounding (open areas, co-located offices, informal meeting places) promotes knowledge sharing

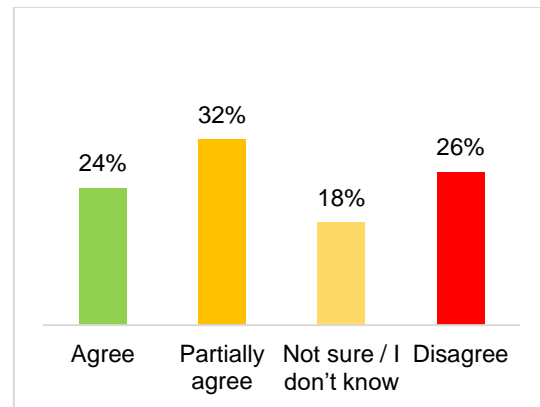


Figure 18: An awareness of the mutual benefits of sharing knowledge is ingrained in employees of the municipality/municipal entity

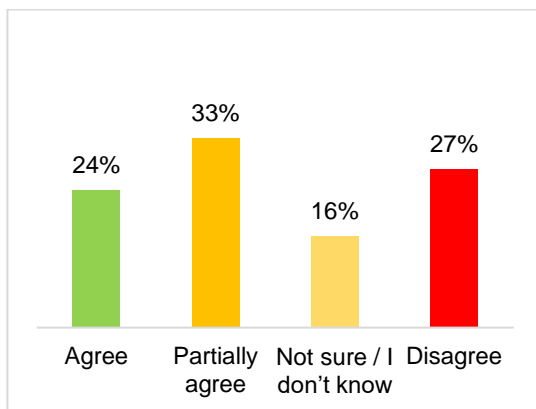


Figure 19: A culture of voluntary contributing to the municipality's /municipal entity knowledge base is entrenched amongst team members

The low score of 34% followed by the 32% (partially agree) of the participants and the 13% (not sure/don't know) is interpreted as the physical work surrounding space is not fully aligned to promoting knowledge sharing in municipalities/municipal entities. This leads to an awareness of the mutual benefits of sharing knowledge not ingrained being ingrained in the employees of the municipality/ municipal entity as illustrated in Figure 18, with 32% of the research participants not sure or did not agree with the statement (18%). One participant concluded that a hostile culture in the local government sector is present stating, *“Our knowledge products institutionally are formed through conflict and not dialogue”*.

It is clear that a culture of voluntary contributing to the municipality/municipal entity knowledge base is not entrenched amongst the team members. This was confirmed by

24% (agree), 33% (partially agree) and 16% (not sure, I don't know) of the research participants. One focus group described the information sharing is critical to ensuring that all departments' head in the same direction., however, sectors did not know what the others were doing".

The overall scores indicate that there is a KM culture deficit in municipalities in the application, communication, and implementation of KM in municipalities. Although culture was identified as a critical success factor for the implementation of KM, the research results confirm the contrary.

3 STRUCTURE

Cluster 1 – Knowledge and teamwork

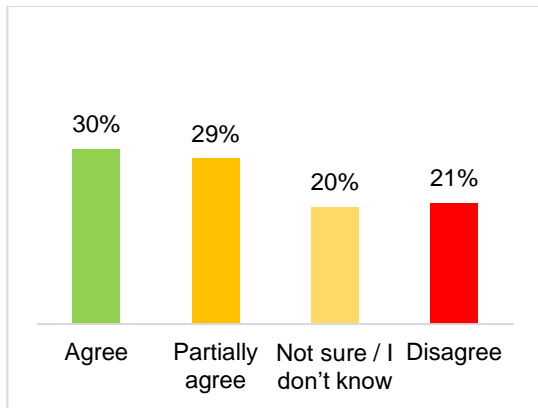


Figure 20: It is not standard practice for the municipality/municipal entity to exploit embodied knowledge across multi-disciplined cross-functional teams

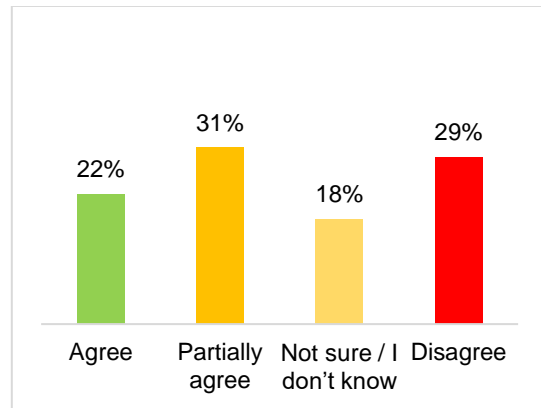


Figure 21: Every opportunity to involve as many cross-functional team members are exploited

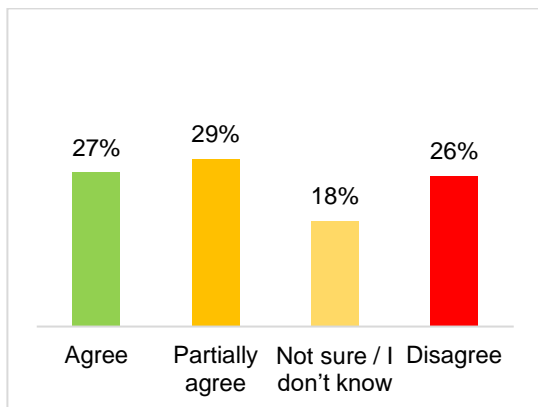


Figure 22: Shared knowledge objectives and how to achieve them are agreed upon between all departments

From the research findings depicted in Figures 20-22 it is concluded that it is not standard practice for the municipality/municipal entity to exploit embodied knowledge across multi-disciplined cross-functional teams. This was confirmed by 30% who agreed with the statement. The fact that 29% partially agreed with the statement followed by 20% of the participants who are not sure or don't know indicates uncertainty and inconsistency in application. The lack of knowledge sharing leads to low morale as expressed by one participant, *We are not motivated to achieve.*

Municipalities are not effectively involving cross functional team members as indicated by the research participants. The low response that agreed with the statement (22%) is telling

in Figure 21. Shared knowledge objectives and how to achieve them are agreed upon between all departments could not be confirmed. The uncertainty of the participants was expressed in 29% of participants who partially agreed which is more than the 27% who agreed with the statement as stated in Figure 22. Participants indicated that there is a problem in how the municipality communicated and this was expressed in the following statement *“If internal knowledge management is distorted...how then do you expect external to be going well.”*

Cluster 2 – Knowledge and roles

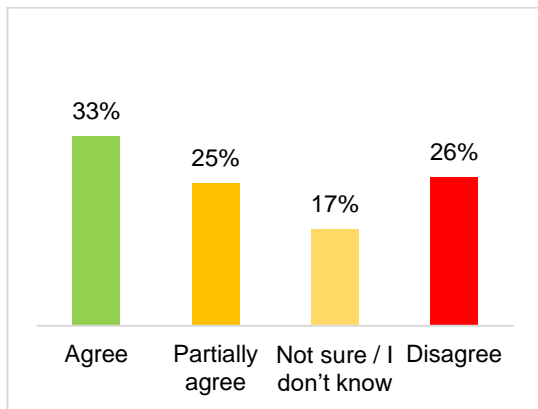


Figure 23: Specific knowledge management roles are not defined

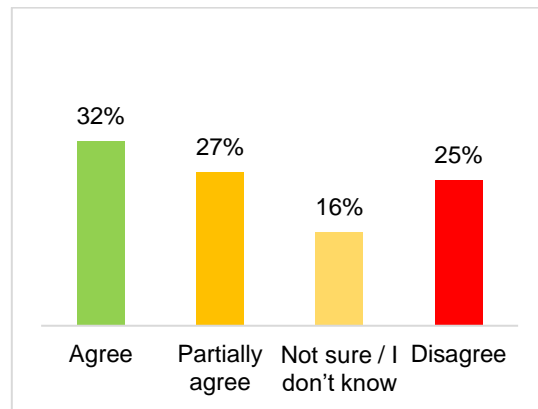


Figure 24: Specific knowledge management appointments are made, and responsibilities allocated

The majority of the research participants (33%) agreed with the statement that specific knowledge management roles are not defined in the local government sector. The 25% of the participants who partially agreed (25%) and 17% who are not unsure together with the 26% who disagree with the statement confirms the view. The research participants indicated uncertainty on whether specific knowledge management appointments are made, and responsibilities allocated. This was confirmed by 32% of the participants. The fact that 27% partially agreed and 16% either did not know or was not sure indicates inconsistencies of the research respondents. The silo mentality result in negative impact in communities as expressed by one participant *“We need to work together so that communities can be served”*.

Cluster 3 – Institutionalizing knowledge

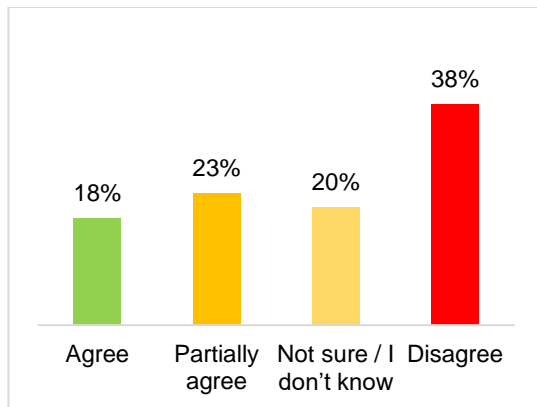


Figure 25: Managers of operational entities do not accept responsibility to promote knowledge management awareness

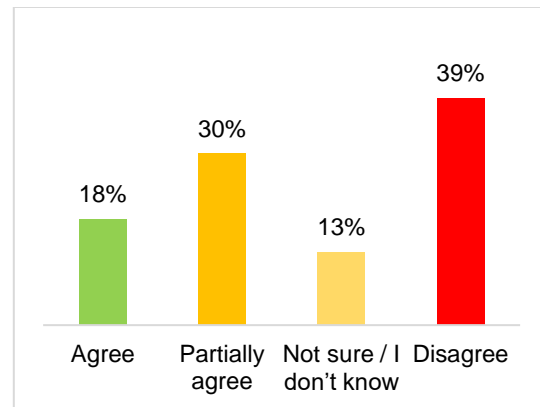


Figure 26: Knowledge and knowledge management are regular agenda points for the formal and informal two-way communication sessions held between management and employees

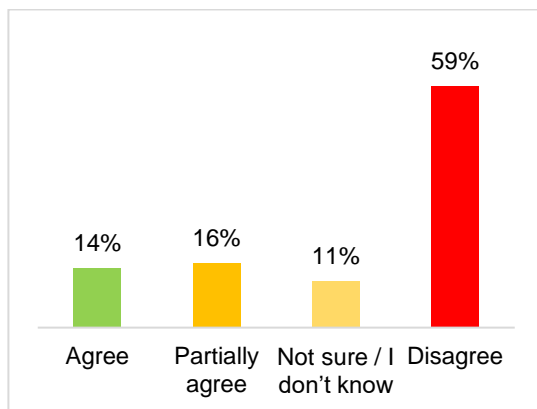


Figure 27: Incentive systems for motivating employees to sustain the municipality/municipal entity's knowledge base are institutionalised and applied

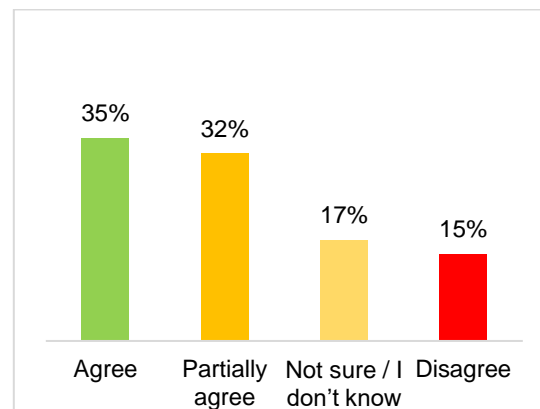


Figure 28: Management has established well-structured formal relationships with all external partners

From the research findings to the question, managers of operational entities do not accept responsibility to promote knowledge management awareness. The respondents indicated that 38% do not agree with, however 23% partially agreed with the statement and 21% were not sure which indicate policy uncertainty. From the research respondents 39% indicated that they did not agree that knowledge and knowledge management are regular agenda points for the formal and informal two-way communication sessions held between management and employees. The fact that 30% of the participants were not sure also is concerning. The research indicates that 59% of the participants disagreed that incentive systems for motivating employees to sustain the municipality/municipal entity's knowledge

base are institutionalised and applied. Although most of the research participants 35% indicate that management has established well-structured formal relationships with all external partners, 32% partially agreed with the statement, which is considerably high. One participant pointed to a lack of implementation “*Everything is good on paper but communication and management, it is a problem*”.

It is concluded that the structure in municipalities and municipal entities are not supporting the effective implementation and application of KM.

The overall scores indicate that the organisational structure does not support the effective implementation of KM in municipalities. Although structure was identified as a critical success factor for the implementation of KM, the research results confirm the contrary.

4 PROCESSES

In this section there no need to cluster the research questions as there were too few questions to merit a clustering the questions.

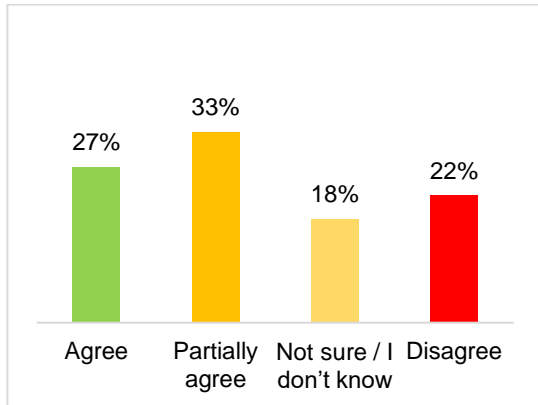


Figure 29: The municipality/municipal entity engages its core knowledge resources across departmental boundaries/functions to face new customer-centric challenges

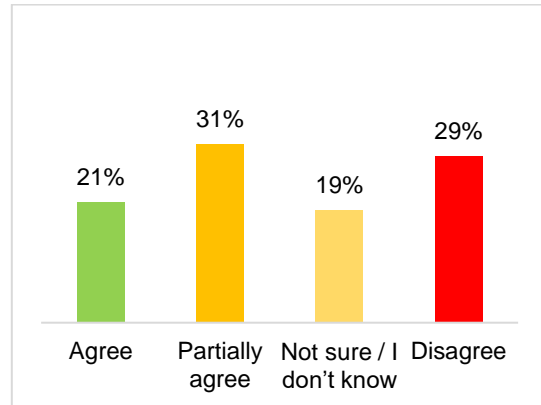


Figure 30: An ethical information-gathering process that scans the environment is institutionalised

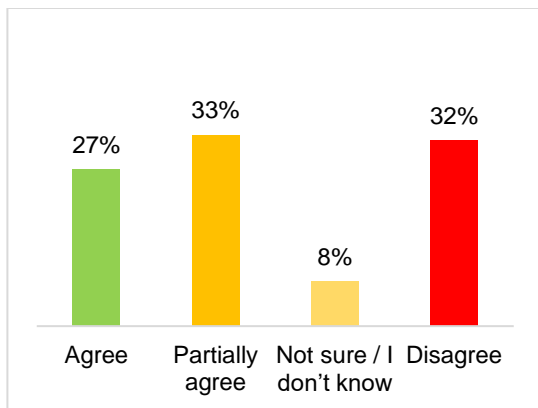


Figure 31: The municipality/municipal entity lacks processes for information distribution

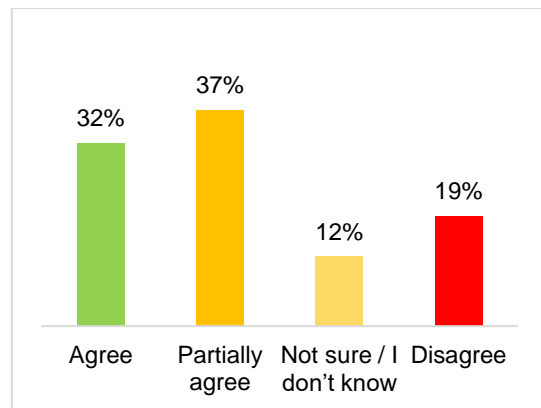


Figure 32: The processes for information distribution are used to enhance knowledge creation, creativity and customer care

The research results indicate that 33% of the respondents partially agreed that the municipality/municipal entity engages its core knowledge resources across departmental boundaries/functions to face new customer-centric challenges as illustrated in Figure 29. From the research findings it is concluded that an ethical information-gathering process that scans the environment is not institutionalised as illustrated in Figure 30.

The research findings indicate a high level of inconsistency in that 33% of participants partially agreed that the municipality/municipal entity lacks processes for information distribution as illustrated in Figure 31. The processes for information distribution are not

used effectively to enhance knowledge creation, creativity, and customer care as illustrated in Figure 32. However, the focus group reported that *municipalities use external communication platforms such as newspapers, Facebook flyers, and noticeboards*. Notwithstanding, the focus groups advised that municipalities *share knowledge using the following platforms such as indabas, internal communication, internal meetings, newsletters, and the processes for approvals*. *Electronic communication is limited to day-to-day operations not communicating with communities only*.

The overall scores and results indicate that the organisational processes do not fully support the effective implementation of KM in municipalities. Although processes were identified as a critical success factor for the implementation of KM, the research results confirm the contrary.

5 TECHNOLOGY

Cluster 1 – Systems

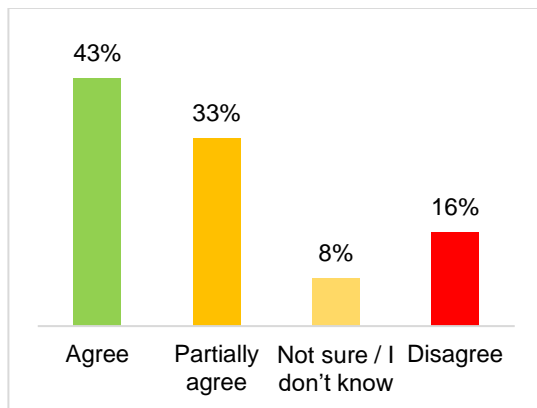


Figure 33: The municipality/municipal entity has implemented information systems designed to enhance effective access to information.

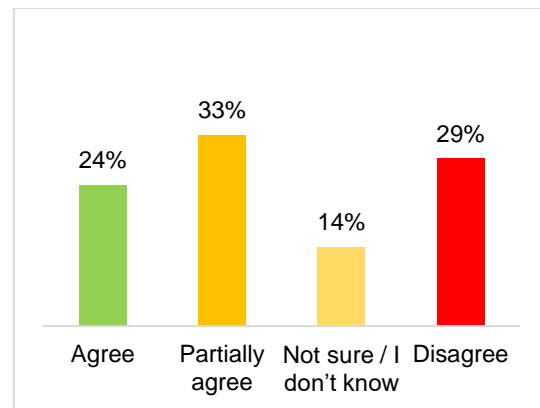


Figure 34: The information systems (groupware, corporate intranets and portals) are not used by relevant employees to enhance decision-making

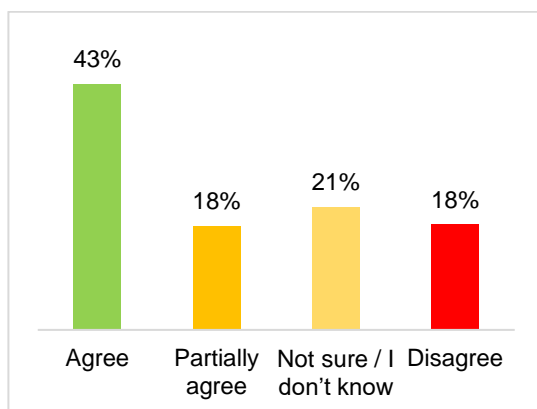


Figure 35: The usage of knowledge management application tools is not regularly assessed

The research findings indicate that the municipality/municipal entity has implemented information systems designed to enhance effective access to information. This indicated by 43% of the participants. However, 33% of the participants indicated that they partially agreed with the statement which is considered very high. The information systems (groupware, corporate intranets, and portals) are not used effectively by relevant employees to enhance decision-making as indicated by 33% of the participants who partially agreed with the statement and illustrated in Figure 34. This was confirmed in a focus group discussion where it was reported that *information platforms are used for operational reasons and not for strategic decision making*. The usage of knowledge

management application tools is not regularly assessed as confirmed by 43% of the research participants. A significant percentage of research participants partially agreed (18%) and a further 21% were not sure or did not know.

Cluster 2 – Applications

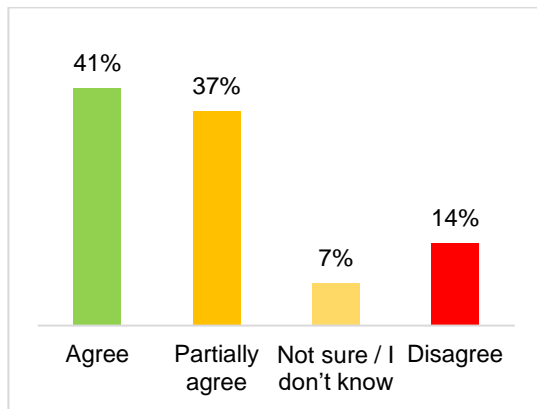


Figure 36: The municipality/municipal entity information technology infrastructure is integrated to ensure efficient accessibility and connectivity to all employees

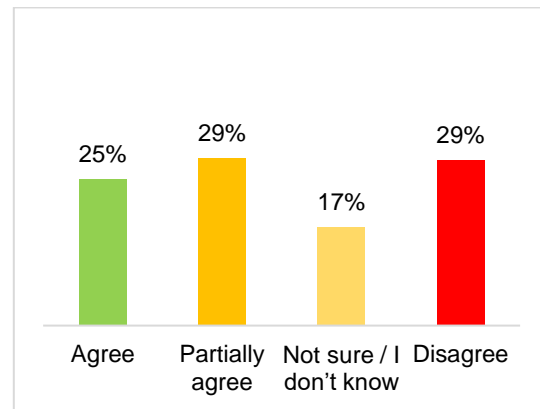


Figure 37: Dedicated knowledge management software applications are functionally integrated with the municipality/municipal entity formal information system

The municipality/municipal entity information technology infrastructure is integrated to ensure efficient accessibility and connectivity to all employees as confirmed by 41% of the research participants. The high percentage of research participants who partially agreed (37%) with the statement points to uncertainty in this area. The research findings indicated that dedicated knowledge management software applications are not functionally integrated with the municipality/municipal entity formal information system and not fully functional in the municipality. From the focus group participants noted that data *is not turned into usable information*. Only 25% of the research participants agreed with the statement and a further 29% partially agreed. The 17% of the participants that indicated that they are not sure or did not know is further evidence of the uncertainty.

Cluster 3 – System review

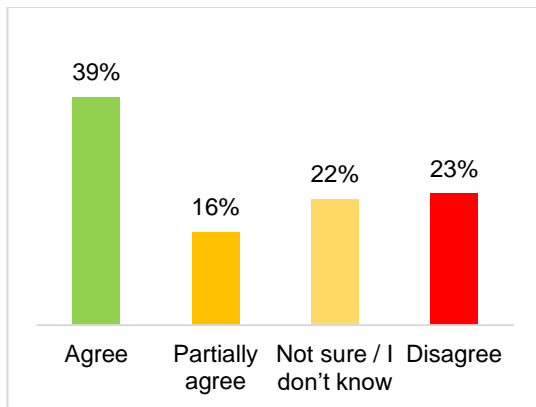


Figure 38: A formal system to manage intellectual capital is not in place

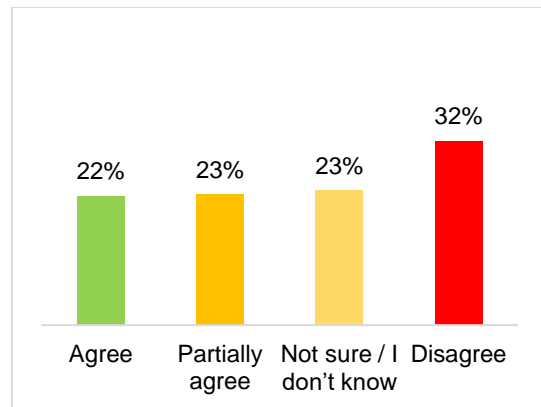


Figure 39: A system of reporting on knowledge management programs and practices is maintained

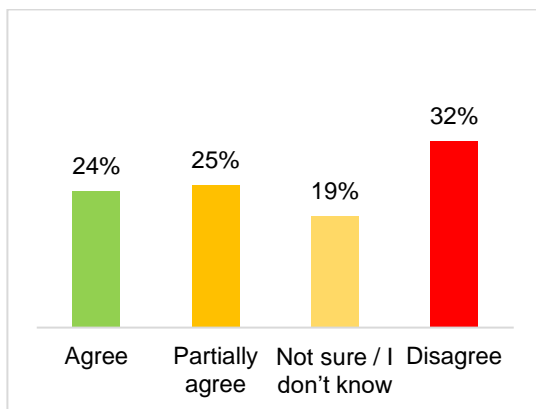


Figure 40: Top management does not understand the importance to align the knowledge management practices with the municipality's business objectives

The research participants confirmed (39%) that a formal system to manage intellectual capital is not in place. However, the 23% (disagree) the 22% (not sure/don't know) and the 16% who partially agree indicate the inconsistency in application. From the research findings it is concluded that a system of reporting on knowledge management programs and practices is not effectively maintained as illustrated in Figure 39. The research findings conclude that top management do not understand the importance of aligning knowledge management practices with the municipality's business objectives as illustrated in Figure 40.

The overall scores and results indicate that technology do not fully support the effective implementation of KM in municipalities. Although technology was identified as a critical success factor for the implementation of KM, the research results confirm the contrary.

SECTION 5: RECOMMENDATIONS

Justice Malala said, “We are a nation of talkers, not doers of politicians, not entrepreneurs. We analyse problems brilliantly; we solve them poorly. We are a nation of great policies, but of little implementation.”

This is the first known KM research that was conducted in the local government sector. It is concluded that KM is not well managed in the local government sector on the level of leadership and strategy culture, structure, processes, and technology. This final section brings theory and practice (implementation) together and make specific recommendations and offer an implementation framework to realise the identified problems of KM in the local government sector. It becomes critical for the LGSETA play the leading role to realise the objectives.

The recommended strategies to realise KM in the local government sector are the result of the generous input from focus group and input from key informants. This section is presented in three parts viz;

1. Implementation recommendations.
2. Implementation stakeholder recommendations.
3. Implementation framework for KM.

Based on the triangulation of the respective data sets and the findings of the survey, the following specific, achievable, measurable and time (SMART) recommendations are made.

1 IMPLEMENTATION RECOMMENDATION

1.1 Organisational Research Readiness

An enormous amount of time and effort was spent (not invested) in persuading the municipalities to participate in a LGSETA program. It is recommended that the LGSETA.

- Develop a municipal research readiness protocol in consultation with provincial LGSETA managers, SDFs, SALGA and COGTA within the next 6 months to streamline research in the local government sector.

2 IMPLEMENTATION STAKEHOLDER RECOMMENDATIONS

The implementation stakeholders expressed a willingness to collaborate with the LGSETA to realise KM in the local government sector. The 10 implementation recommendations emanate from the in-depth discussions with stakeholders - COGTA, SALGA, MILE, Institutions of Higher Learning and a senior provincial government KM practitioner in particular. This is synthesized and expounded on below.

The LGSETA as the lead facilitator must;

- Develop an integrated KM blueprint (code of good KM practice) for the local government sector within the next 6 months in partnership with identified stakeholders that includes the goals, objectives and priorities of KM. The blueprint must be inclusive of the leadership and strategy, culture, structure, processes, technology, change management, resource allocation, KM tools and the identification of the organisational actors to realise the KM objectives.
- Facilitate a meeting with the key identified stakeholders to develop a KM implementation plan for the local government sector within the next 6 months.
- With SALGA and partners update and implement the SALGA KM (2018) toolkit in concert with the identified stakeholders within the next 12 months.
- Establish District wide KM community of practice forums in line with the District Development Model with COGTA (the champion of the DDM) within the next 12 months.
- Conduct a District wide Audit/Scan/Assessment to establish the state of KM per district that is backed by evidence within the next 12 months.
- Adopt the KMSA competency framework for the local government sector within the next 12 months.
- Develop KM coaching, mentorship and course material in partnership with identified stakeholders within the next 12 months.
- Ringfence funding for KM specific initiatives for the local government sector as part of the Discretionary Grant process that is integrated with works skills plan process within the next 6 months.
- Align the KM needs of the local government sector to the 4IR and digital transformation efforts in the country in order to build adaptive KM programmes within the next 12 months.
- Conduct follow up research on KM in the local governance sector within 5 years.

3 IMPLEMENTATION FRAMEWORK FOR KM

Knowledge Management stand at the centre of all organisational activities and the successful implementation will have as an outcome, strong institutions (Sustainable Development Goal 16). The LGSETA is the authority on skills development for the local government sector and the specific recommendations proposed have far reaching implications for (individual skills level) development and capacity building (institutional level) within the local government sector. The LGSETA as the authority must facilitate (lead) the knowledge and knowledge management revolution through mobilizing all available resources, working in concert with the identified partners. This calls for a collaborative efforts with the LGSETA as the lead facilitator of the change implementation process. To implement KM in the local government sector, the implementation framework as adopted from Barber, 2015 and coined by Cloete, 2022 as Governance5iQ is advanced. The implementation framework is based on 5 questions and depicted in Table 3. The implementation framework is applicable at the micro (municipal) and macro (stakeholder) and based on concrete evidence decision making as opposed to gut feel or ideology.

Table 3: Implementation Framework

The 5 Questions	Processes
<p>1. Why we do what we do?</p> <p>(Vision)</p>	<p>Defines the unique contribution and impact with specific measurable goals and clear priorities that is clearly communicated to all levels of the organisation.</p>
<p>2. How is it being done?</p> <p>(Mission)</p>	<p>Clear practical plans that are implemented and regularly updated through Standard Operating Procedures and policies. This section explains the daily disciplines and the development of a change management plan with the identification of resources.</p>
<p>3. How will we know at any given moment that we are on track?</p> <p>(Monitoring and Evaluation)</p>	<p>A reliance on good, steady real time data (evidence) on key indicators with analysis and monitoring routines involving all key stakeholders. This could include KM Key Performance Indicators for all managers.</p>
<p>4. If we not on track what is being done about it?</p> <p>(Consequences Management)</p>	<p>Agreement on corrective actions to be taken that is continually refined with a focus on innovative approaches to problem solving.</p>

The 5 Questions	Processes
<p>5. How do we lead and learn?</p> <p>(Knowledge management)</p>	<p>Organisational commitment to innovation, lifelong learning and building lessons back into the system. A relentless focus on continuous improvement and high performance.</p>

The effective implementation of knowledge management gives rise to the institutionalization of the organisational processes to ensure that evidence informed policy and programs decisions are made by the local government sector. This critical organisational paradigm shift is a move away from process (inputs) to outcomes that is considered more important for the long term sustainability of the organisation in line with objective 16 of the SDGs – peace, justice and strong institutions (Interview, Cloete, 2023). This will ensure that KM is mainstreamed and will lead to good governance outcomes (ethical culture, good performance, effective controls and legitimacy) as envisaged by King IV and championed by KM ambassadors (politicians) (Interview, Cloete, 2023; Interview Maponya and Engelbrecht, 2023).

The 2021 Municipal staff regulations as discussed earlier in the text should be integrated with KM ambitions, processes and practices that take into account the conclusions and recommendations of this study. This is the window of opportunity for KM that sets in place a new organisational culture and regime with management leading the change management efforts.

4 LIMITATIONS OF THE STUDY

Like any research, there were certain limitations to the study. Other than the timeframe to complete the research project, the following constraints are reported.

The focus group discussions involved both senior and middle managers – this could be a constraint in that employees may not have felt comfortable to share openly or as one municipal manager noted, you are allowed to ‘cautiously disagree’, although said as a joke this could be an inhibiting factor. Secondly the logistic arrangements of who to attend the sessions were managed by the HR department or sometimes the manager in the office of the MM – in this instance some senior or middle managers could have been excluded that the research team was not aware of. Thirdly, the research did not explore the harvesting of indigenous knowledge. More than often municipalities “take note” the community inputs (compliance) as reported by an IDP manager but fail to take into account the rich input and experience of communities. This could be the focus for future research. Fourthly, the

research did not engage with politicians – given the fact that politicians play such a crucial and critical role in the performance of local government, future research should consider such. Finally of the 306 completed questionnaires, 8 participants indicated multiple municipalities or agencies – in future the system should be locked to avoid such.

5 CONCLUSION

The cornerstone of African society is the notion of Ubuntu, I am because we are – a person is a person through other people. Local governance place people at the heart of all human development and local government is the sphere of government closest to the people. It is at the local government sphere where people experience the caring or corrupt state. Knowledge and the managing of knowledge cannot be divorced from people (knowledge workers) who are the primary source of organizational knowledge and the bearers of organisational memory.

The research results paint bleak picture in terms of the understanding, application, and integration of KM in the local government sector. This was highlighted by the quantitative results (questionnaire) and confirmed in the qualitative results (focus group discussions and discussions with key informants). Respondents indicated some understanding of the concept KM, but they were not sure how this is aligned with other processes. This study identified the critical success factors for KM to succeed in the literature, but the local government sector suffers from an absence of such as highlighted in the research findings.

The evidence is overwhelming and point to a crisis of confidence in KM. This is the result of a leadership and management deficit and a lack of effective communication of the value to be gained from knowledge harvesting in organisations. For KM to succeed requires decisive and ethical leadership to drive the KM agenda. The tone is set at the top, however if leaders behave (govern) contrary to what is said, then no employee will misunderstand the message. The problem or an absence of a KM culture was pointed out. The culture of an organisation is the result of what the organisation reward and punish. People behave themselves into a culture. A culture where people create, acquire, share, and learn from one another as pointed out in the literature was found wanting. The foundations of ubuntu – sharing knowledge and learning and growing is not emphasized effectively in the local government sector but there are pockets of excellence.

The how part of KM involves procedures and processes that is expressed through policies and practices. These KM policies and procedures showed glaring gaps as confirmed in the research. These must be co designed involving as many of the organisational actors

and include representatives of labour as highlighted in the literature. This will ensure legitimacy and ensure that knowledge workers at all levels engage in KM activities creating a coaching and mentorship regime. The KM organisational design to support KM- was found to be absent. These KM processes are not sufficiently supported by the appropriate technology and the technology platforms.

The empirical evidence presented is clarion clear – knowledge management is the missing link for sustainable local governance and the biggest threat to the democratic project in South Africa.

“There is no point in publishing papers (research reports), if they cannot be translated into better treatments, better survival, better quality of life and longer life for the people of SA”.

Prof Bongani Mayosi

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Appendix A: Research Permission

Mr / Ms / Mrs / Dr / Prof.....

The Municipal Manager

..... Municipality

27 October 2022

Dear

Re: Request for permission to do research

This research is undertaken as part of a research partnership between the Department of Public Administration and Management at the University of the Free State, and the Local Government Sector Education and Training (LGSETA) of South Africa. As such, the proposed research with its focus on knowledge management, is an outcome of the LGSETA's commitment to enhancing good governance, leadership and management capabilities within South African municipalities.

Knowledge management and its implementation are fundamental to improving service delivery in the South African local government context. A lack of and poor service delivery in some South African municipalities which is part of the wicked problems in the local government sphere, makes it critical to explore how municipalities apply knowledge management principles and practices to improve the current state of service delivery in the country. Thus, how municipalities apply knowledge management by utilising the expertise, and experiences of service users, employees, and suppliers to improve the organisation's performance is critical. Significantly such improvement in a municipality's performance lies with its management structure. Therefore, this research explores the implementation of knowledge management in the South African local government sphere towards the development of a knowledge management strategic framework.

It is against this background that we request your permission to undertake this research at municipality. This will require conducting face-to-face focus group discussions with you and the municipality's management structure as well as their participation in the completion of a questionnaire. Thus, we request the email addresses of the executive managers, senior managers, middle managers and junior managers to recruit their participation in this study. Ultimately this research should lead to the development of a

knowledge management implementation strategic framework for your municipality and local government in general.

TITLE OF THE RESEARCH PROJECT

Knowledge management in the South African local government sphere: towards a knowledge management strategic implementation framework

PRINCIPLE INVESTIGATOR / RESEARCHER(S) NAME(S) AND CONTACT NUMBER(S):

Researcher(s)	Position	Institution	Contact details
Dr. Harlan Cloete	Research fellow / Project lead	Dept. of Public Administration and Management, University of the Free State, South Africa	+27(0)82925 5212 CloeteHCA@ufs.ac.za
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Professor Fanie Cloete	Research fellow		cloetegs@gmail.com
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Dr Tafadzwa Maramura	Senior lecturer		MaramuraTC@ufs.ac.za
Mr Willem Ellis	Lecturer	Centre for Gender and Africa Studies, University of the Free State, South Africa	+27(0)51-401 2470 EllisWF@ufs.ac.za

FACULTY AND DEPARTMENT:

Faculty of Economics and Management Sciences

Department of Public Administration and Management

STUDY LEADER(S) NAME AND CONTACT NUMBER:

Harlan Cloete

Tel: +27(0) 82 9255212

WHAT IS THE AIM / PURPOSE OF THE STUDY?

This study aims to explore the implementation of knowledge management in the South African local government sphere towards the development of a knowledge management implementation strategic framework.

WHO IS DOING THE RESEARCH?

The study is undertaken by the following research team.

Researcher(s)	Position
Dr. Harlan Cloete	Research fellow / Project lead
Dr. Maréve Biljohn	Academic Head of Department / Senior lecturer
Professor Fanie Cloete	Research fellow
Professor Liezel Lues	Professor
Dr. Lyndon Du Plessis	Senior lecturer
Dr. Tafadzwa Maramura	Senior lecturer
Mr Willem Ellis	Lecturer

HAS THE STUDY RECEIVED ETHICAL APPROVAL?

This study is awaiting to receive approval from the General Human Research Ethics Committee (GHREC) of the University of the Free State. A copy of the approval letter can be obtained from the Academic head of the Department for Public Administration and Management Dr Maréve Biljohn at Biljohnmim@ufs.ac.za.

Approval number: *Insert approval number*

WHY ARE YOU INVITED TO TAKE PART IN THIS RESEARCH PROJECT?

Randomly selected municipalities are invited to participate in the study. As part of the municipal management structure that is responsible for implementing knowledge management, you are selected to participate in this research. Your participation is deemed important to provide insights into your experiences and expectations on how knowledge management is practised and applied in municipalities. Further, to provide your perspectives concerning the development of a knowledge management implementation framework for your municipality and local government in general.

WHAT IS THE NATURE OF PARTICIPATION IN THIS STUDY?

The study involves the completion of a questionnaire as well as focus group sessions. Your participation in this research study requires that you participate in the questionnaire (15 minutes), as well as the focus group (60 minutes).

CAN THE PARTICIPANT WITHDRAW FROM THE STUDY?

Participation in the study is voluntary, and you are under no obligation to consent to participation. If you decide to participate, please indicate so by completing the consent to participate form before the start of the completion of the questionnaire or focus group discussion. Should you decide not to participate in the completion of the questionnaire or focus group after reading this information, you are free to not participate. You are free to withdraw at any time and without giving a reason. However, it may not be possible to withdraw from the process once the focus group discussion has been concluded and transcribed. The reason for this is because no identifiable information will be recorded to identify participant responses, which may lead to the withdrawal of the wrong participant responses.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

Participating in this study has no financial reward(s), but the non-financial rewards are (i) adding new knowledge to the academic discourse, (ii) developing new research about knowledge management at the local government sphere and (iv) guiding the development of a strategic framework on how knowledge management can be improved and implemented. One's participation in the study will be kept highly confidential.

WHAT IS THE ANTICIPATED INCONVENIENCE OF TAKING PART IN THIS STUDY?

The only anticipated inconvenience for participating in this study relates to the potential risk of loss of work time. Research participants are advised to participate in the focus groups and completion of the questionnaire at a time that does not lead to loss of work time. As the data is collected through questionnaires and focus group discussions, they will be scheduled at the most convenient time for the participants.

WILL WHAT I SAY BE KEPT CONFIDENTIAL?

The responses that research participants provide will be kept confidential. Their names will not be recorded; the responses provided cannot be linked to a research participant. Their confidential information will be stored in a password-protected file on the researcher's laptop. Since a research participant's identity will be anonymous, the responses will be given codes or pseudonyms. Only the researchers will access the responses. While every effort will be made by the researcher to ensure that a research participant will not be connected to the information that they share during the focus group, I cannot guarantee that other participants in the focus group will treat information confidentially. I shall, however, encourage all participants to do so. For this reason, I will advise research participants not to disclose personally sensitive information in the focus group. Also, all collected information disseminated through academic conference papers published in conference proceedings or academic journal publications will only be reported in the aggregate. Therefore, a study report may be submitted for publication, but individual participants will not be identifiable in such a report.

HOW WILL THE INFORMATION BE STORED AND ULTIMATELY DESTROYED?

The electronically captured data and recordings from the focus groups will be stored on a password-protected computer. The data file will be deleted five years after all envisaged research outputs have been accepted for publication or presented at academic and research or other conferences.

WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

No payment or reward is going to be offered, financial or otherwise for participating in the study.

HOW WILL THE PARTICIPANT BE INFORMED OF THE FINDINGS / RESULTS OF THE STUDY?

If you would like to be informed of the final research findings, please contact Dr Harlan Cloete on +27 (0) 82 9255212 or email cloetehca@ufs.ac.za. The findings are accessible for only 5 years post collection of the data. Should you require any further information or want to contact the researcher about any aspect of this study, please contact Dr Harlan Cloete on +27 (0) 82 9255212 or email cloetehca@ufs.ac.za. Should you have concerns about how the research has been conducted, you may contact the Academic Head of the Department of Public Administration and Management Dr Maréve Biljohn at Biljohnmim@ufs.ac.za.

Yours sincerely

Dr. Harlan Cloete

Research Fellow and Project Lead

Department of Public Administration and Management

University of the Free State

Appendix B: Research Study Information Leaflet and Consent Form



RESEARCH STUDY INFORMATION LEAFLET AND CONSENT FORM

DATE

26 October 2022

TITLE OF THE RESEARCH PROJECT

Knowledge management in the South African local government sphere: towards a knowledge management strategic implementation framework

PRINCIPLE INVESTIGATOR / RESEARCHER(S) NAME(S) AND CONTACT NUMBER(S):

Researcher(s)	Position	Institution	Contact details
Dr. Harlan Cloete	Research fellow / Project lead	Dept. of Public Administration and Management, University of the Free State, South Africa	+27(0)82925 5212 CloeteHCA@ufs.ac.za
Dr. Maréve Biljohn	Academic Head of Department / Senior lecturer		+27(0)51-401 7185 Biljohnmim@ufs.ac.za
Professor Fanie Cloete	Research fellow		cloetegs@gmail.com
Professor Liezel Lues	Professor		+27(0)51-401 2886 LuesL@ufs.ac.za
Dr Lyndon Du Plessis	Senior lecturer		+27(0)51-401 2284 Dplesslm@ufs.ac.za
Dr Tafadzwa Maramura	Senior lecturer		MaramuraTC@ufs.ac.za
Mr Willem Ellis	Lecturer		Centre for Gender and Africa Studies, EllisWF@ufs.ac.za

		University of the Free State, South Africa	
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FACULTY AND DEPARTMENT:

Faculty of Economics and Management Sciences

Department of Public Administration and Management

STUDY LEADER(S) NAME AND CONTACT NUMBER:

Dr. Harlan Cloete

Tel: +27(0) 82 9255212

WHAT IS THE AIM / PURPOSE OF THE STUDY?

This study aims to explore the implementation of knowledge management in the South African local government sphere towards the development of a knowledge management implementation strategic framework.

WHO IS DOING THE RESEARCH?

The study is undertaken by the following research team.

Researcher(s)	Position
Dr. Harlan Cloete	Research fellow / Project lead
Dr. Maréve Biljohn	Academic Head of Department / Senior lecturer
Professor Fanie Cloete	Research fellow
Professor Liezel Lues	Professor
Dr. Lyndon Du Plessis	Senior lecturer
Dr. Tafadzwa Maramura	Senior lecturer
Mr Willem Ellis	Lecturer

HAS THE STUDY RECEIVED ETHICAL APPROVAL?

This study is awaiting to receive approval from the General Human Research Ethics Committee (GHREC) of the University of the Free State. A copy of the approval letter can be obtained from the Academic head of the Department for Public Administration and Management Dr Maréve Biljohn at Biljohnmim@ufs.ac.za.

Approval number: *Insert approval number*

WHY ARE YOU INVITED TO TAKE PART IN THIS RESEARCH PROJECT?

Randomly selected municipalities are invited to participate in the study. As part of the municipal management structure that is responsible for implementing knowledge management, you are selected to participate in this research. Your participation is deemed important to provide insights into your experiences and expectations on how knowledge management is practised and applied in municipalities. Further, to provide your perspectives concerning the development of a knowledge management implementation framework for your municipality and local government in general.

WHAT IS THE NATURE OF PARTICIPATION IN THIS STUDY?

The study involves the completion of a questionnaire as well as focus group sessions. Your participation in this research study requires that you participate in the questionnaire (15 minutes), as well as the focus group (60 minutes).

CAN THE PARTICIPANT WITHDRAW FROM THE STUDY?

Participation in the study is voluntary, and you are under no obligation to consent to participation. If you decide to participate, please indicate so by completing the consent to participate form before the start of the completion of the questionnaire or focus group discussion. Should you decide not to participate in the completion of the questionnaire or focus group after reading this information, you are free to not participate. You are free to withdraw at any time and without giving a reason. However, it may not be possible to withdraw from the process once the focus group discussion has been concluded and transcribed. The reason for this is because no identifiable information will be available to identify participant responses, which could lead to the withdrawal of the wrong participant responses.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THIS STUDY?

Participating in this study has no financial reward(s), but the non-financial rewards are (i) adding new knowledge to the academic discourse, (ii) developing new research about knowledge management at the local government sphere and (iv) guiding the development of a strategic framework on how knowledge management can be improved and implemented. One's participation in the study will be kept highly confidential.

WHAT IS THE ANTICIPATED INCONVENIENCE OF TAKING PART IN THIS STUDY?

The only anticipated inconvenience for participating in this study relates to the potential risk of loss of work time. Research participants are advised to participate in the focus groups and completion of the questionnaire at a time that does not lead to loss of work time. As the data is collected through questionnaires and focus group discussions, they will be scheduled at the most convenient time for the participants.

WILL WHAT I SAY BE KEPT CONFIDENTIAL?

The responses that you provide will be kept confidential. Your name will not be recorded; the responses provided cannot be linked to you. Your confidential information will be stored in a password-protected file on the researcher's laptop. Since your identity will be anonymous, the responses will be given codes or pseudonyms. Only the researchers will access the responses. While every effort will be made by the researcher to ensure that you will not be connected to the information that you share during the focus group, I cannot guarantee that other participants in the focus group will treat information confidentially. I shall, however, encourage all participants to do so. For this reason, I advise you not to disclose personally sensitive information in the focus group. Also, all collected information disseminated through academic conference papers published in conference proceedings or academic journal publications will only be reported in the aggregate. Therefore, a study report may be submitted for publication, but individual participants will not be identifiable in such a report.

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WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

No payment or reward is going to be offered, financial or otherwise for participating in the study.

HOW WILL THE PARTICIPANT BE INFORMED OF THE FINDINGS / RESULTS OF THE STUDY?

If you would like to be informed of the final research findings, please contact Dr Harlan Cloete on +27 (0) 82 9255212 or email cloetehca@ufs.ac.za. The findings are accessible for only 5 years post collection of the data. Should you require any further information or want to contact the researcher about any aspect of this study, please contact Dr Harlan Cloete on +27 (0) 82 9255212 or email cloetehca@ufs.ac.za. Should you have concerns about how the research has been conducted, you may contact the Academic Head of the Department of Public Administration and Management Dr Maréve Biljohn at Biljohnmim@ufs.ac.za.

Thank you for taking the time to read this information sheet and for participating in this study.

CONSENT TO PARTICIPATE IN THIS STUDY

I, the undersigned,

_____ (*participant's full names to be included*), (the "**Participant**")

confirm that I voluntarily agree to participate in the research study referred to as the

_____ (the "**Study**") in relation to

_____ and which Study is being conducted by

_____ (*Insert the name of the researcher*), (the "**Researcher**").

I, the undersigned Participant, further confirm that–

1. the Researcher has explained the nature, procedure, potential benefits, and anticipated inconvenience of my participation in the study.
2. I have read (or had explained to me) and understood the Study as explained in the attached information sheet.
3. I have had sufficient opportunity to ask questions and am prepared to participate in the study.
4. I understand that my participation in the Study is entirely voluntary and that I am free to withdraw at any time without penalty (if applicable).
5. I voluntarily provide the UFS and the Researcher with my personal information and consent to the UFS and the Researcher collecting, disclosing and processing my personal information in order to conduct the Study and any related activities in relation thereto;
6. I hereby acknowledge and confirm that I understand the purpose for which the UFS and the Researcher may collect, store, use, delete, destroy, outsource, transfer or

otherwise process, as the context and circumstances may require and as contemplated in terms of POPIA, my personal information as set out herein.

7. I am aware that the findings of the Study will be anonymously processed into a research report, journal publications and/or conference proceedings and that my personal information will be aggregated and deidentified at such stage.
8. I also give the UFS permission to share, without notification, the collected data with other researchers at the UFS or other Higher Education Institutions. This permission is dependent on the same principles of ethical research practices, anonymity/confidentiality, safekeeping of information, and other issues listed above applying.

I, the Participant, agree to the completion of the questionnaire and the recording of the focus group discussion.

Full Name of Participant:

Signature of Participant: _____

Date: _____

Full Name(s) of Researcher(s):

Signature of Researcher: _____

Date: _____

Appendix C: Attendance Registers

See attachments.

Appendix D: Question Schedule: Focus Group With Staff of Municipalities and Municipal Entities

QUESTION SCHEDULE: FOCUS GROUP WITH STAFF OF MUNICIPALITIES AND MUNICIPAL ENTITIES

Researcher's introductory remarks to the research participant(s)

Instructions:

- Kindly turn off your cell phone or put it on silent.
- Please answer the questions honestly and openly (there is no right or wrong answer).

Section A: General questions

1. Please explain your understanding of knowledge management in as much detail as possible.

Section B: Leadership

2. Elaborate on the strategy or lack thereof that is used by management to lead the creation of knowledge.

Section C: Culture

3. How does the municipality/municipal entity apply organisational knowledge to improve service delivery?
4. How is joint knowledge development and sharing part of the standard practices between departments/directorates to create greater customer value?

Section D: Structure

5. How do managers of operational entities use knowledge to improve service delivery?

Section E: Processes

6. Which processes does the municipality/municipal entity use for information distribution?

Section F: Technology

7. How are information systems (groupware, corporate intranets and portals) used by relevant employees to enhance decision-making regarding service delivery?

Section G: Recommendations

8. Which recommendations do you have towards the development of a knowledge management implementation strategic framework?

Appendix E: Question Schedule: Questionnaire for Staff of Municipalities and Municipal Entities

QUESTION SCHEDULE: QUESTIONNAIRE FOR STAFF OF MUNICIPALITIES AND MUNICIPAL ENTITIES

Instructions:

- Please rate the questions honestly and openly (there is no right or wrong answer).

Section A: General questions

1. What is your current position at work? _____
2. Which department or directorate are you working in?

3. Indicate your years of employment in local government. _____

Section B: Leadership

Instruction: Rate each statement using the scale provided.

		Rate each statement using this scale			
Question		1-Agree	2 - Partially agree	3 - Not sure / I don't know	4 - Disagree
1.	The municipality/municipal entity has a strategy that speaks to the importance of knowledge for the achievement of its objectives.				
2.	The knowledge strategy is not communicated to all levels by management.				
3.	A strategy to create knowledge that aligns with the operational objectives to enhance customer value is present.				
4.	Skills development is not considered a key component of knowledge creation.				
5.	Opportunities are provided to apply newly acquired knowledge in the workplace.				

6.	No formal and informal opportunities for sharing knowledge with fellow workers to encourage mutual learning are provided.				
7.	Employees are rewarded for their contribution to organisational learning (e.g., through regular feedback, employee recognition)				
8.	The advantage to be gained from exploiting external (customer, supplier, distributor, alliance and partner) knowledge is understood throughout the municipality/municipal entity.				

Section C: Culture

Instruction: Rate each statement using the scale provided.

		Rate each statement using this scale			
	Question	1-Agree	2 - Partially agree	3 - Not sure / I don't know	4 - Disagree
1.	Knowledge and information are not communicated across departmental boundaries.				
2.	Communication is underscored by mutual trust and respect.				
3.	The municipality/municipal entity is committed to continually applying organisational knowledge to customer service improvement.				
4.	Sharing customer experiences with others is not part of the daily routine.				
5.	Joint knowledge development and sharing are standard practices between departments to create greater customer value.				
6.	The physical work surrounding (open areas, co-located offices, informal meeting places) promotes knowledge sharing.				
7.	Management discourages the practice of information sharing.				

8.	An awareness of the mutual benefits of sharing knowledge is ingrained in employees of the municipality/municipal entity.				
9.	Management does not recognise knowledge-sharing efforts.				
10.	Management discourages knowledge and information hoarding.				
11.	A culture of voluntary contributing to the municipality's /municipal entity knowledge base is entrenched amongst team members.				

Section D: Structure

Instruction: Rate each statement using the scale provided.

		Rate each statement using this scale			
Question		1-Agree	2 - Partially agree	3 - Not sure / I don't know	4 - Disagree
1.	It is not standard practice for the municipality/municipal entity to exploit embodied knowledge across multi-disciplined cross-functional teams.				
2.	Every opportunity to involve as many cross-functional team members are exploited.				
3.	Specific knowledge management roles are not defined.				
4.	Specific knowledge management appointments are made, and responsibilities allocated.				
5.	Managers of operational entities do not accept responsibility to promote knowledge management awareness.				
6.	Knowledge and knowledge management are regular agenda points for the formal and informal two-way communication sessions held between management and employees.				

7.	Incentive systems for motivating employees to sustain the municipality/municipal entity's knowledge base are institutionalised and applied.				
8.	Management has established well-structured formal relationships with all external partners.				
9.	Shared knowledge objectives and how to achieve them are agreed upon between all departments.				

Section E: Processes

Instruction: Rate each statement using the scale provided.

		Rate each statement using this scale			
Question		1-Agree	2 - Partially agree	3 - Not sure / I don't know	4 - Disagree
1.	The municipality/municipal entity engages its core knowledge resources across departmental boundaries/functions to face new customer-centric challenges.				
2.	The municipality/municipal entity lacks processes for information distribution.				
3.	The processes for information distribution are used to enhance knowledge creation, creativity and customer care.				
4.	An ethical information-gathering process that scans the environment is institutionalised.				

Section F: Technology

Instruction: Rate each statement using the scale provided.

Question		Rate each statement using this scale			
		1- Agree	2 - Partially agree	3 - Not sure / I don't know	4 - Disagree
1.	The municipality/municipal entity has implemented information systems designed to enhance effective access to information.				
2.	The information systems (groupware, corporate intranets and portals) are not used by relevant employees to enhance decision-making.				
3.	The municipality/municipal entity information technology infrastructure is integrated to ensure efficient accessibility and connectivity to all employees.				
4.	Dedicated knowledge management software applications are functionally integrated with the municipality/municipal entity formal information system.				
5.	A formal system to manage intellectual capital is not in place.				
6.	The usage of knowledge management application tools is not regularly assessed.				
7.	A system of reporting on knowledge management programs and practices is maintained.				
8.	Top management does not understand the importance to align the knowledge management practices with the municipality's business objectives.				