

Assessing readiness for the implementation of knowledge management in local  
governments: The case of Stellenbosch Municipality

by

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## DECLARATION

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Shamin Gaffoor

Date: 26 August 2008

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## ABSTRACT

Knowledge management is a well-founded management approach that has been successfully applied across the corporate sector and holds the same benefits for public sector organisations. Knowledge management is a management philosophy that impacts on various components of an organisation, in particular the organisational processes and the information and communication configurations within the organisation. Knowledge management can significantly advance organisational efficiency. However, it must be ensured that different organisational processes and departments collaborate and that functional silos are eliminated. Knowledge management requires long-term commitment and dedication from all organisational members. Furthermore, there are certain knowledge management enablers in an organisation that need to be developed and that are necessary for the achievement of organisational effectiveness. These enablers are the organisational culture, the human resources, the information technology, organisational structure and the strategy and leadership.

As previously mentioned, this management philosophy can be successfully applied in the public sector. Local government organisations, who are largely responsible for service delivery to the public can effectively implement knowledge management practices as a strategic tool to achieve their service delivery and operational goals. The need therefore exists for local governments to take on the role of knowledge-based organisations that prosper on the capabilities of knowledge workers. In order for local governments to deliver services, function well and operate in an environment characterised by transparency and accountability, local governments must have effectual strategies and governance policies in terms of the knowledge present within their organisations.

## OPSOMMING

Kennisbestuur is 'n deeglik gegronde bestuursbenadering wat oor die korporatiewe sektor heen suksesvol toegepas word en wat dieselfde voordele inhou vir organisasies in die openbare sektor. Kennisbestuur is 'n bestuursfilosofie wat 'n impak het op verskillende komponente van 'n organisasie, veral op die werksmetodes en die inligtings- en kommunikasiestrukture binne die organisasie. Kennisbestuur kan die doeltreffendheid van die organisasie aansienlik bevorder, maar daar moet nietemin toegesien word dat verskillende werksmetodes en departemente binne die organisasie saamwerk en dat funksionele silo's uitgeskakel word. Kennisbestuur vereis toewyding en 'n langtermynverbintenis van al die lede van die organisasie. Verder is daar sekere faktore, wat kennisbestuur in 'n organisasie bevorder, wat ontwikkel moet word en wat noodsaaklik is om doeltreffendheid in die organisasie te bereik. Hierdie bemagtigingsfaktore sluit die kultuur van die organisasie, die menslike hulpbronne, die inligtingstechnologie en die strategie en leierskap in.

Soos reeds genoem, kan hierdie bestuursfilosofie met groot sukses in die openbare sektor toegepas word. Plaaslike regeringsorganisasies wat hoofsaaklik verantwoordelik is vir dienslewering aan die publiek, kan kennisbestuurspraktyke doeltreffend implementeer as 'n strategie om dienslewering en bedryfsdoelwitte te bereik. Die behoefte bestaan dus dat plaaslike regerings bekend sal wees as kennisgebaseerde organisasies wat vooruitgaan weens die vaardighede van kenniswerkers. Om te verseker dat plaaslike regerings dienste lewer, goed funksioneer en kundig bedryf word in 'n omgewing wat gekenmerk word deur deursigtigheid en verantwoordelikheid, moet plaaslike regerings doeltreffende strategieë en regeringsbeleide hê ooreenkomstig die kennis wat binne hul organisasies beskikbaar is.

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# CHAPTER 1

## INTRODUCTION

### 1.1 BACKGROUND AND RATIONALE

#### 1.1.1 Background

Since democratisation in South Africa in 1994 the South African Public Service has undergone a rigorous series of transformations. South Africa, like many other developing nations, has jumped on the New Public Management bandwagon by adopting a set of businesslike reforms borrowed from the private sector. These reforms were manifested in the White Paper on Transforming Public Service Delivery (Republic of South Africa, 1997), or Batho Pele, as it is commonly known. “Batho Pele” is the Sotho word meaning “people first”, which implies the customer-centric nature of South Africa’s service delivery reforms.

The White Paper on Transforming Public Service Delivery (Republic of South Africa, 1997) stipulates eight guiding principles for government institutions that are to be applied in their service delivery efforts. The eight Batho Pele principles include:

- There should be *consultation* with citizens so as to determine the type and quality of public services that they receive.
- *Service standards* should be set and citizens must be informed about the level and quality of services they will receive so as to make them conscious of what to anticipate.
- Citizens should be afforded equal *access* to all the services due unto them.
- Citizens should be treated with *courtesy and consideration*.
- Citizens must have complete and accurate *information* about the public services they are to be given.

- *Openness and transparency* are essential because citizens should be informed about the functioning and management of government departments.
- *Redress* is important when citizens do not get the guaranteed level of service. They must therefore be offered an apology, a full explanation, and a quick and efficient solution must be provided. Moreover, citizens' complaints must be handled in a considerate and constructive manner.
- Finally, public services must be delivered in a cost-efficient manner so as to provide citizens with value for their money.

The White Paper on Transforming Public Service Delivery (Republic of South Africa, 1997) is a well structured document that addresses all the important aspects of effectively and efficiently delivering services to citizens. However, the problem with service delivery lies with the implementation of these guidelines. Other legislation that highlights the importance of service delivery is the Constitution, Act 108 of 1996 (Republic of South Africa, 1996) and the Municipal Systems Act, No. 32 of 2000 (Republic of South Africa, 2000).

In the South African context, local governments are largely responsible for delivering quality services to the public in an efficient and effective way. In an age where knowledge and information are key strategic tools in the organisation, there is a need for local governments to adopt the role of knowledge-based organisations that thrive on the competence of knowledge workers. In order for local governments to deliver the best possible services, function effectively and operate in a milieu characterised by transparency and accountability, there is a need for local governments to implement a system of control in terms of the knowledge present within their organisations.

This can be achieved by implementing a knowledge management system. Knowledge management is a well-founded management approach that has been successfully applied across the corporate sector. Knowledge management involves methodically creating, preserving and making available

the extensive knowledge that is present in organisations (Fowler and Pryke, 2003:254).

### **1.1.2 Rationale**

Although a considerable amount of literature about the importance of knowledge management in the organisational context currently exists, these writings all focus on the role of knowledge management in the corporate world and very few writers have actually delved into the role of knowledge management in the public sector and specifically at local government level.

Within the sphere of government, not many studies have been conducted regarding knowledge management. However, the pressing demands of society in terms of quality services to be delivered efficiently and effectively call for the adoption of new processes within municipalities. As proven in the corporate sector, knowledge management as a process offers significant opportunities for innovation and change within government organisations so as to improve functionality and quality of outputs.

## **1.2 RESEARCH PROBLEMS AND OBJECTIVES**

In the current information age and knowledge economy it is becoming increasingly necessary for organisations to generate and utilise knowledge to obtain a competitive advantage and function efficiently. Although the notion of obtaining a competitive advantage is not necessarily relevant to the public sector, the process of knowledge management has significant implications for the public sector as well. One of the implications is that organisations should be strategically aligned to provide better services to their clients by gaining a better understanding of their clients (Fowler and Pryke, 2003:254). This is especially important for the public sector in terms of service delivery. More specifically, this applies to municipalities who are largely responsible for service provision to the public.

Although South African local governments are subjected to service delivery conditions in terms of detailed legislation in the Municipal Systems Act, No. 32 of 2000, the Batho Pele principles and their respective performance management indicators as stipulated in each municipality's integrated development plan (IDP) document, there are still significant problems regarding the implementation of these requirements.

Given this background, this study proposed to investigate the following:

The extent to which local governments in South Africa demonstrate readiness for implementing knowledge management practices in their organisations through the assessment of knowledge management enablers present in organisations.

The objectives of the research were therefore to:

- Investigate if there is an awareness of knowledge management within the organisation.
  - This objective sought to identify if the key stakeholders are familiar with knowledge management as a concept and if they are alert to what knowledge management processes and systems are present in their organisation.
- Determine if there is a culture of knowledge sharing present in the organisation.
  - This objective aimed to determine how widespread knowledge sharing is in the organisation and how employees experience this practice of sharing.
- Establish if the organisational structure and strategy are conducive to knowledge sharing.
  - This objective aimed to establish whether or not the horizontal and vertical organisation configuration has an impact on how knowledge is disseminated in the organisation. Furthermore, the objective sought to determine whether the organisation's strategy and internal policies enable knowledge management.

- Explore whether the appropriate technological and human resources are available to facilitate effective knowledge management.

Thus, the aim of this research was to establish and illustrate the value of knowledge management for local governments and to determine how geared up local government institutions are to adopt knowledge management practices in their organisations.

### **1.3 RESEARCH DESIGN**

For the purposes of this study the research design comprised a case study design. According to Welman, Kruger and Mitchell (2006:193) when case studies are used “we are directed towards understanding the uniqueness and the idiosyncrasy of a particular case in all its complexity”. This approach involved an extensive literature review and empirical field research. The research design entailed the collection of data through an extensive literature review, which was followed by a series of interviews with key role players at Stellenbosch Municipality.

Interviews were conducted to attain primary qualitative data focusing on the understanding, awareness, opinions and perceptions of employees regarding knowledge management and to evaluate the incidence of knowledge management enablers, namely information technologies, human resources, culture, strategy and leadership, and organisational structure.

### **1.4 RESEARCH METHODOLOGY**

The methodology followed for the purposes of this research was qualitative in nature. The study comprised extensive desktop research along with a comparative literature study of relevant material. In addition, the study included a case study based on the Stellenbosch Municipality to determine the extent and state of knowledge management practices and systems in the organisation. The study focused on the Corporate Services, Strategic Services and Financial Services directorates of Stellenbosch Municipality.

The Corporate Services directorate was selected as it houses both the human resources and information technology departments. Human resources and information technology have been identified as enablers of knowledge management. The Strategic Services directorate was selected because it is responsible for the drafting of the organisation's Integrated Development Plan which is a framework depicting the organisation's mission and strategy. An organisation's strategy is yet another enabler of knowledge management. The Financial Services directorate was selected due to their function of drafting the organisation's budget which is directly linked to the strategy. Furthermore, the financial services directorate was selected because of the close reliance of both the human resources and the information technology departments on budgetary allocations regarding personnel and ICT infrastructure. Given the nature of the study, the sampling procedure followed was purposive. According to Schutt (2006:155) purposive sampling may be used to study an entire population of a specific group or a subset of a population. Additionally purposive sampling can serve as a "key informant survey" that can be used to identify those persons who are for the most part informed about the topic being studied (Schutt, 2006:155). According to Schutt (2006:156) purposive sampling is valuable when doing a case study on an organisation, a community or any well-defined and reasonably restricted group.

The case study, which was a source of primary data, focused on:

- Identifying the key knowledge management areas in the municipality
- Where knowledge in the organisation is captured
- Who is responsible for capturing knowledge
- By whom and how knowledge is utilised, processed and disseminated
- How financial, human and technological resources are employed to facilitate knowledge creation, processing, utilisation and dissemination.

This data was attained by means of interviews with municipal personnel present in selected departments in the organisation. Interviews as a data collection method provide researchers with the opportunity to elucidate their

questions to the interviewee (Brynard and Hanekom, 1997:32). The interviews were conducted on a one-one basis with organisational members selected on the basis of their position in the organisation as well as in the department in which they work. Effective knowledge management requires integration and coordination among various departments in an organisation. For this reason it was necessary to conduct interviews with the management in each of the selected directorates.

Interviewees were selected mainly from the following groups:

- Senior managers across the selected departments within the municipality
- Managers within the Information technology, human resources, integrated development planning and finance departments.

The interview questionnaire used for the purposes of this study was semi-structured and comprised mostly open-ended questions. This type of interview was selected as it is flexible and allows the interviewees to express their own opinions and thus provide the interviewer with additional relevant information. The interview questions were all related to the knowledge management enablers identified in the literature review. The questions were divided into 5 broad categories, namely; culture and strategy, structure, human resources, information and communication technologies, and general questions on knowledge management. The questions used in the interview were derived from information gathered whilst conducting the literature review.

The interviews were conducted and broadly covered questions to determine the following:

- Is there an understanding and awareness of knowledge management?
- Who or what are the main links to the organisation's knowledge management strategy (the people, financial resources, other resources)?
- What technology is available to facilitate knowledge management?

- What is the capacity to utilise the technology?
- What formal and informal networks exist to aid knowledge management?
- Are there frustrations in terms of gaining access to information?
- Is there a willingness to freely transmit and share information among employees?

Brynard and Hanekom (1997:48) argue that throughout the process of data collection, the researcher is involved in what they call a “preliminary analysis of the data”. Therefore, with regard to this study, a thorough data analysis was commenced by categorising the data obtained from the interview process into like groups. A comparative analysis was then conducted on the data in the various groups to identify commonalities and differences in the responses generated from the interviews. Finally, the data generated from the case studies was evaluated on the basis of the theories and models identified in the literature review in order to draw the necessary conclusions and make suitable recommendations.

## **1.5 CHAPTER OUTLINE**

The study comprises seven chapters. An overview of each chapter is provided below so as to guide the reader to understand the reasoning and flow of the content.

Chapter 1 is an introductory chapter which provides some background to the study. The purpose of the chapter is to explain the rationale and objectives of the study and to elucidate the methodology of the research.

Chapter 2 seeks to introduce to the reader the nature of knowledge management. An extensive review of available literature illustrates what knowledge management is, what the advantages of knowledge management are, and what theories and models of knowledge management exist.

Chapter 3 provides an overview of knowledge management in the organisational context. It also discusses in detail each of the organisational elements that have been identified as knowledge management enablers.

Chapter 4 is a review of the implementation of knowledge management in public sector organisations. It also looks at the relevant legislation pertaining to knowledge management.

Chapter 5 is a case study of Stellenbosch Municipality based on a series of interviews to assess the general awareness of knowledge management and the occurrence and development of knowledge management enablers in the municipality.

Chapter 6 is an analysis of the data obtained from the interviews in light of the knowledge management enablers.

Chapter 7 is a concluding chapter where specific recommendations are given.

## **1.6 CONCLUSION**

This introductory chapter provided the necessary background information to the study, including the rationale, the research objectives, the research problem, the research design and methodology.

Furthermore, an overview and short description was given of the chapters that are to follow. The next chapter will introduce the reader to knowledge management by describing its nature and how it is practically applied and represented.

## CHAPTER 2

### THE NATURE OF KNOWLEDGE MANAGEMENT

#### 2.1 INTRODUCTION

The world is progressively moving from what was known as the “information age” to an age of knowledge, primarily characterised by knowledge, which is considered a major facet of human life. Individuals and organisations are beginning to recognise knowledge as the key to innovation and attaining a competitive advantage (Syed-Ikhsan and Rowland, 2004a:238). Consequently, the acknowledgement of the importance of knowledge has given rise to the concept of knowledge management.

Knowledge management as a concept and its practical application may be considered in a number of ways. In order to grasp what knowledge management constitutes it is firstly necessary to look at what knowledge is and how it is derived. In this respect it is useful to consider the following knowledge hierarchy illustrated and explained in Figure 2.1 below.

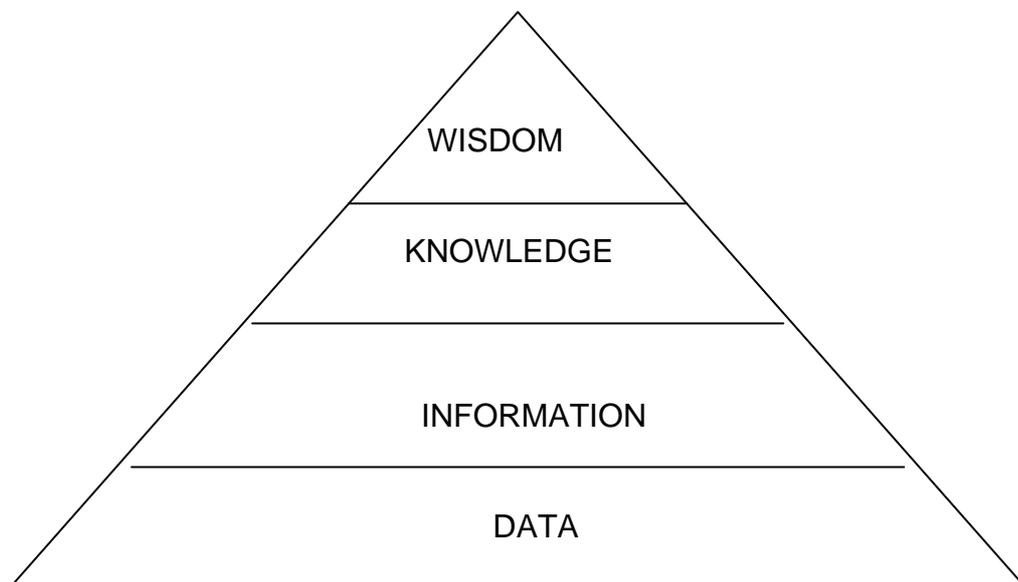


Figure 2.1: Knowledge hierarchy (adapted from Morton and Lacey, 2006)

The knowledge hierarchy is widely used to conceptualise knowledge. The hierarchy represents the common notion of knowledge development in which

data is converted into information and information is converted to knowledge, which eventually develops into wisdom (Hicks, Dattero and Galup, 2007:7). As depicted in Figure 2.1 above, each phase of the hierarchy is dependent on the phase below it. At the bottom of the knowledge hierarchy we find data, which is followed by information, which is consequently followed by knowledge and the top of the hierarchy constitutes wisdom.

The first phase of the hierarchy is data, which refers to raw or distinct facts that have not been processed. Within the organisational context, one can surmise that data or facts in their basic form have little value for managers in an organisation.

The second phase of the hierarchy is information. When data is processed and structured it becomes information. Information can thus be explained as data that has a function and significance and that has been placed in context (Hicks, Dattero and Galup, 2007:6). Therefore, within the organisational context, this structured data is useful for the purpose of analysis and problem solving.

The third phase of the hierarchy constitutes knowledge, which builds on information. Thus knowledge refers to “applied information”, meaning that it is the outcome of information that has been processed (Minnaar and Bekker, 2005:106). Knowledge is of greater significance as it is derived from experts and is based on expert experience. It therefore demands a higher comprehension compared to information (Lehane, Clarke, Coakes and Jack, 2004:16). Knowledge comes about as a result of social interaction between individuals and organisations, and according to Nonaka, Toyama and Konno (2000:42) it is “context-specific” as it is dependent on a definite period and space. If knowledge is not put into context and combined with an understanding of how to utilise it, it is merely information (Hicks, Dattero and Galup, 2007:6).

When referring to knowledge it is necessary to draw a distinction between two types of knowledge; namely tacit knowledge and explicit knowledge. Explicit

knowledge refers to that knowledge which is readily available, documented and can be easily disseminated, whereas tacit knowledge refers to internalised knowledge encompassing the expertise, skills, understanding and experience within the organisation. When tacit knowledge is referred to, it must be remembered that individuals are the primary stores of knowledge (Mostert and Snyman, 2007:4).

The fourth phase of the hierarchy constitutes wisdom. Wisdom, according to Lundvall and Nielsen (2007:210), is assumed to create a better understanding and an ethical basis for action.

Given the elementary nature of the knowledge hierarchy, it has a number of shortcomings as it does not distinguish between two key components of knowledge, namely; explicit and tacit knowledge. Furthermore, in addition to the above omission of explicit and tacit knowledge, the knowledge hierarchy also fails to indicate certain behavioural aspects of knowledge and does not include aspects such as the distinction between individual and organisational knowledge and organisational learning (Hicks, Dattero and Galup, 2007:8). Bearing in mind the shortcomings of the knowledge hierarchy, it still serves as a useful tool for describing what knowledge is and how it differs from data and information.

For that reason, Taylor (2007:21) devised a revised knowledge hierarchy suited to the organisational environment (Fig. 2.2). The revised hierarchy draws a distinction between records, which essentially entails data, information and knowledge. Depending on the specific organisation, knowledge, which forms the base of the hierarchy, will usually require people management at an individual level as opposed to records which are managed on a corporate basis (Taylor, 2007:19).

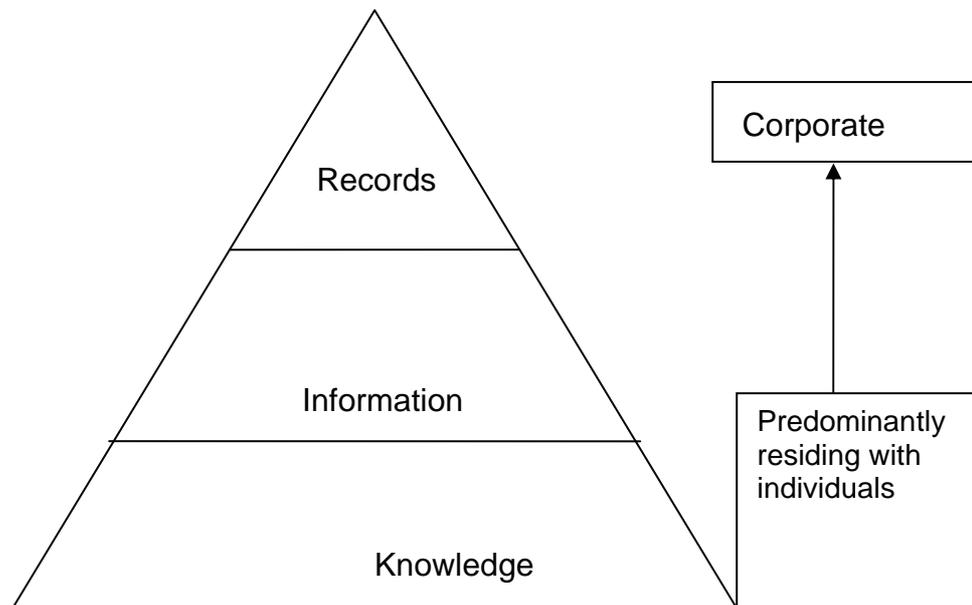


Figure 2. 2: Revised Knowledge Hierarchy (Taylor, 2007:21)

The revised hierarchy provides better insight as to where knowledge in an organisation can be found and how to identify it. What can be deduced from this model is that the utilisation of information and records is dependent on an individual's knowledge and skills. Knowledge is the primary element of any business process because a tangible deliverable cannot come to pass without adequate knowledge (Taylor, 2007:20). Thus it is essential to recognise what knowledge is required to progress towards creating the information and records which invariably reveal that a business process has been concluded (Taylor, 2007:20).

## 2.2 DEFINING KNOWLEDGE MANAGEMENT

Given this background it is now possible to define knowledge management (KM). Liebowitz (1999:6) defines knowledge management as “the formalization of and access to experience, knowledge, and expertise that create new capabilities, enable superior performance, encourage innovation, and enhance customer value”. According to Fowler and Pryke (2003:254) knowledge management involves methodically creating, maintaining and

allowing access to the extensive knowledge repositories within an organisation, thus allowing organisations to be better suited to deliver customer services due to a greater understanding of the organisation's internal processes and functioning. These organisations are therefore able to develop and preserve the inherent knowledge of their employees which in turn may be used to facilitate innovation and service provision (Fowler and Pryke, 2003:254).

Knowledge management as a business philosophy has proven to be very successful within the private sector. However, to appreciate the value of knowledge management it is essential that a number of fundamental principles regarding the role of knowledge in the organisation is understood. Milner (2000:2) identifies the following principles as central to understanding the role of information – and specifically knowledge – in the organisation:

- Within the organisational context it is crucial that the process of generating data is understood.
- Collecting and organising data to make it useful and valuable must then become the main concern.
- Data is then converted to information by means of diffusion and analysis.
- Information, when suitably applied, contributes to the processes of knowledge creation and decision making.
- The process of transforming data to information to knowledge gives rise to what can be termed “organisational wisdom” which can be explained as the development of learning in the organisation which allows it to grow productively.

### **2.3 THE KNOWLEDGE MANAGEMENT PROCESS**

Knowledge management is a process involving a number of steps and procedures. McAdam and Reid (2000) point out that although various representations exist that depict the knowledge management process, the most common steps in the knowledge management process constitute the following activities:

- knowledge generation
- knowledge embodiment
- dissemination (knowledge sharing)
- knowledge utilisation.

As mentioned before, there are two expressions of knowledge, namely explicit (codified) knowledge and tacit knowledge. The latter, according to Nonaka (1994:16), is a constant act of “knowing” and is a core element in the generation of new knowledge. At the most basic level, knowledge is generated by individuals who comprise an organisation; the organisation merely provides a platform and supports knowledge generation by individuals (Nonaka, 1994:17). Thus, Nonaka (1994:17) states that knowledge generation within an organisation must be understood as a process that augments individually created knowledge and embodies that knowledge as part of the organisation.

Furthermore, Nonaka (1994:17) emphasises that the possible input of informal groups such as suppliers and customers in organisational knowledge should be linked to the organisational structure and strategic development, as this new knowledge could be associated with more beneficial organisational processes.

Knowledge embodiment as a step in the knowledge management process refers to the application or the physical enactment of organisational processes in which organisational knowledge is entrenched and therefore includes a range of activities in the organisation stemming from both explicit and tacit knowledge (Mostert and Snyman, 2007:12). According to Syed-Ikhsan and Rowland (2004b:95), two steps of the knowledge management process, namely knowledge generation and knowledge sharing in an organisation, are crucial to remain competitive and to attain success. Sharing knowledge requires one to have knowledge and to know where to acquire knowledge. To achieve this it is necessary for an organisation to manage its knowledge, since knowledge management presents a means to improve and make the

process of creating, sharing, disseminating and comprehending organisational knowledge simpler (Hicks, Dattero and Galup, 2007:6). Through knowledge sharing and transfer an organisation benefits in various ways:

- time and cost savings
- more responsive decision making
- facilitation of the orientation of new personnel
- promotion of knowledge utilisation and cooperation
- collection of knowledge for utilisation by the organisation
- promotion of a culture of trust
- promotion of the transfer of “best practice”
- encouragement of product , service and systems innovation
- impact on organisational outcomes

(Kermally, 2002:58).

Knowledge sharing can itself be characterised as a process for purposely transforming work experience into shared or common knowledge. Therefore, to achieve knowledge sharing, activities need to decisively capture knowledge and promote its shift to and reuse by other parties (Trudell, 2006:27). Furthermore, Trudell (2006: 28) states that knowledge sharing is a means by which to attain organisational objectives and that over time it can lead to obtaining a competitive advantage, improved operations and ultimately customer satisfaction.

With regard to the final step of the knowledge management process, knowledge utilisation, Mostert and Snyman (2007:11) contend that knowledge utilisation allows an organisation to understand information or scenarios presented by the organisation’s internal or external milieu. Based on the distinction made between tacit and explicit knowledge, Brown and Duguid (2001:204) comparatively draw a distinction between what can be termed as “know how” and “know that”. The latter type of knowledge, which largely comprises theory, is of little use on its own even though it is explicit and fluid. In order for “know that” to be useful and practical, it is necessary to have “know how”, which can be compared to tacit knowledge (Brown and Duguid, 2001:204). Thus, the concept of communities of practice gains significance in

terms of knowledge management in view of the fact that it is important to effectively manage knowledge in organisations. Community of practice as a concept may be defined as “people bounded by informal relations who share a common practice” (Liebowitz, 1999:8-11). These activities are crucial to generating and distributing organisational knowledge. In addition, Brown and Duguid (1991:40-57) argue that communities of practice are central to organisational learning and that it fosters innovation within the organisation.

## **2.4 KNOWLEDGE MANAGEMENT MODELS**

To conceptualise the contribution of knowledge management to organisational efficiency it is useful to consider various models of knowledge management that have been represented in the literature. According to McAdam and Reid (2000:317) knowledge management models can be categorised into three broad categories, namely intellectual capital models, knowledge category models and socially constructed models.

The first category of models, intellectual capital models, aids in the conceptualisation of knowledge. According to Kong and Prior (2008:119) intellectual capital refers to the shared knowledge rooted in an organisation’s staff, practices and relationship networks. Intellectual capital comprises three interconnected organisational components, namely; human capital, relational capital and structural capital (Kong and Prior, 2008:120). The first component, human capital, refers to various aspects of an organisation’s human resources function. The second component, relational capital, refers to the stream of knowledge flowing from the organisation to its external milieu which includes suppliers, clients and industry associations. The third component called structural capital, serves as the supporting base for human and relational capital (Kong and Prior, 2008:121). Structural capital comprises all the non-human stores of knowledge within in an organisation which may include databases, the organisational culture, copyrights and other elements which create value for the organisation (Kong and Prior, 2008:121). Thus Kong and Prior (2008:122) maintain that when intellectual capital

components are pooled in a unique, irreversible and valuable fashion, they aid the attainment of a competitive advantage for an organisation.

The second category of knowledge management models is what is known as “Knowledge Category Models”. This knowledge management model has been put forward by Nonaka and Takeuchi (1995). Nonaka and Takeuchi (1995:83) devised what they call the “Five-Phase Model of the Organisational Knowledge-Creation Process”.

According to Nonaka and Takeuchi (1995:70) knowledge creation refers to the continual and forceful interaction between tacit and explicit knowledge. Based on this notion, Nonaka and Takeuchi (1995) proposed a model of knowledge creation where a knowledge spiral of organisational knowledge reflects the interaction between tacit and explicit knowledge. Nonaka and Takeuchi (1995:72) refer to knowledge creation as a “spiral process” that commences at the individual level, progresses towards and through the growing interactions that span the organisation, and moves beyond its boundaries. The Nonaka and Takeuchi model comprises five distinct phases:

1. Sharing tacit knowledge
2. Creating concepts
3. Justifying concepts
4. Building an archetype
5. Cross-levelling knowledge.

Nonaka and Takeuchi’s model starts with the sharing of tacit knowledge which they equate to the process of socialisation. According to Nonaka and Takeuchi (1995:85) the implicit knowledge that individuals hold is the foundation for knowledge creation in an organisation, and the transfer of this knowledge between various diverse individuals in an organisation is crucial to the process of creating knowledge. Hence the comparison of this initial phase to the concept of socialisation.

The second phase of the model, namely “creating concepts”, refers to the conversion of the shared tacit knowledge among individuals to explicit

knowledge, resulting in the emergence of new concepts (Nonaka and Takeuchi, 1995:84). This phase occurs when the shared knowledge is translated into spoken words and is ultimately moulded into explicit notions.

Nonaka and Takeuchi's third phase involves what they call "justifying concepts" (Nonaka and Takeuchi, 1995:84). During this phase, the organisation needs to justify the created concept. This means that the organisation must establish whether the newly created concept is genuinely worthwhile to pursue and whether it will be useful for the organisation and society at large. This phase may be equated with a "screening process" where individuals constantly scrutinise ideas and knowledge (Nonaka and Takeuchi, 1995:86).

During the fourth phase of Nonaka and Takeuchi's model, namely "building an archetype", approved concepts are transformed into an "archetype" or, more simply, a model. This model serves as a concrete manifestation of the justified concept. It may take the form of a prototype when a new product is developed, or when an innovation has occurred it can take the form of a "model operating mechanism" (Nonaka and Takeuchi, 1995:87). According to Nonaka and Takeuchi (1995:84) a knowledge-creating organisation functions within an open-ended system where there are continuous knowledge flows. Thus during the fifth phase, "cross-levelling of knowledge" occurs. This means that during the fifth phase knowledge is disseminated in a spiral fashion across and beyond the organisation in both a horizontal and vertical fashion (Nonaka and Takeuchi, 1995:88).

Another type of model, which is a socially constructed model of knowledge management, encompasses a broad definition of knowledge and depicts knowledge as being inherently connected to various social and learning practices within the organisation (McAdam and Reid, 2000:317). The model, depicted in Figure 2.3, highlights four main features of knowledge management, namely:

1. Knowledge construction in organisations
2. Embodiment of knowledge in the organisation via social interactions

3. Dissemination of knowledge throughout the organisation
4. Economic use of knowledge.

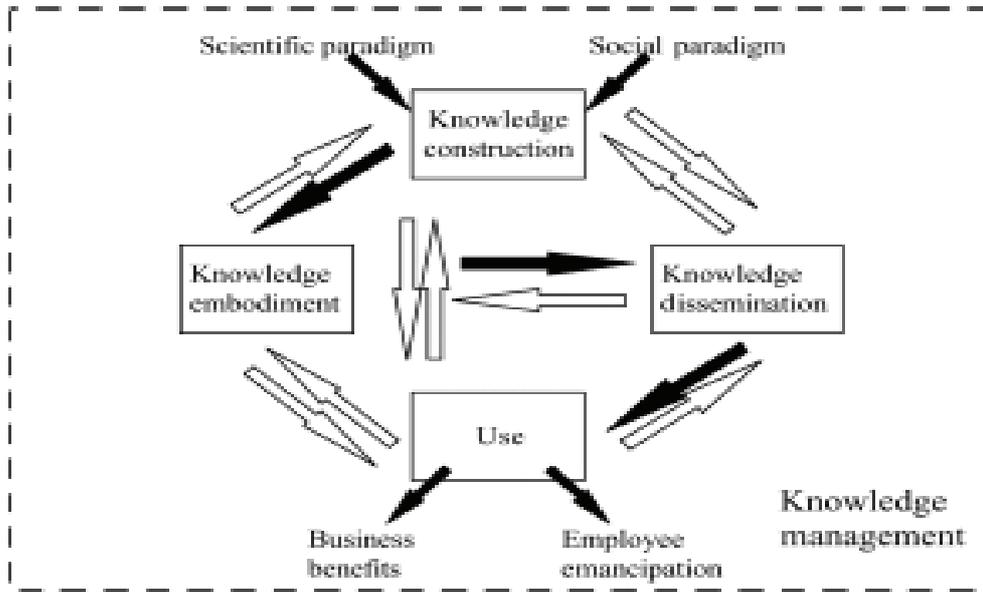


Figure 2.3: A socially constructed model of knowledge management (McAdam and Reid, 2000)

Another model that highlights various ways in which the knowledge management process can be approached is illustrated below in Figure 2.4. The process view of knowledge management proposed by Armistead (1999) focuses on four steps: inputs, conversion process, outputs and knowledge used.

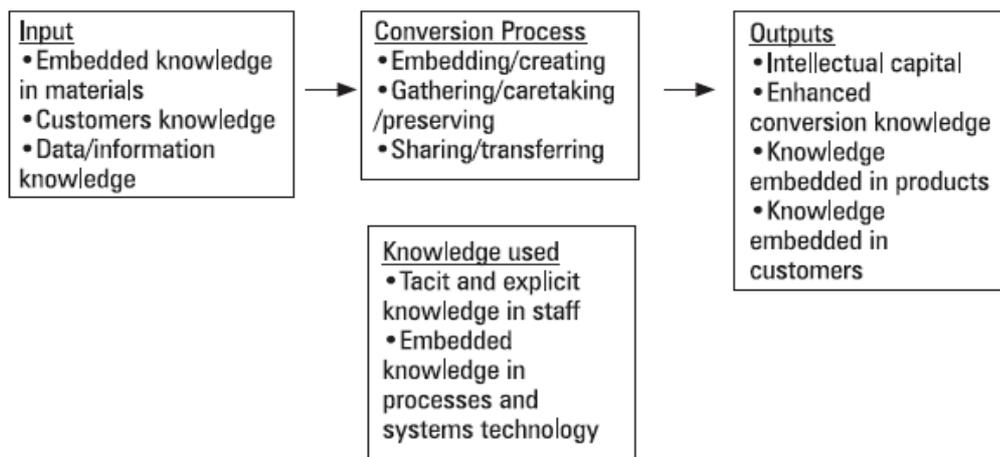


Figure 2.4: A process view of knowledge management (Armistead, 1999)

Figure 2.5 below is a modification of the process view and depicts how various resources are used within organisations during the knowledge management process.

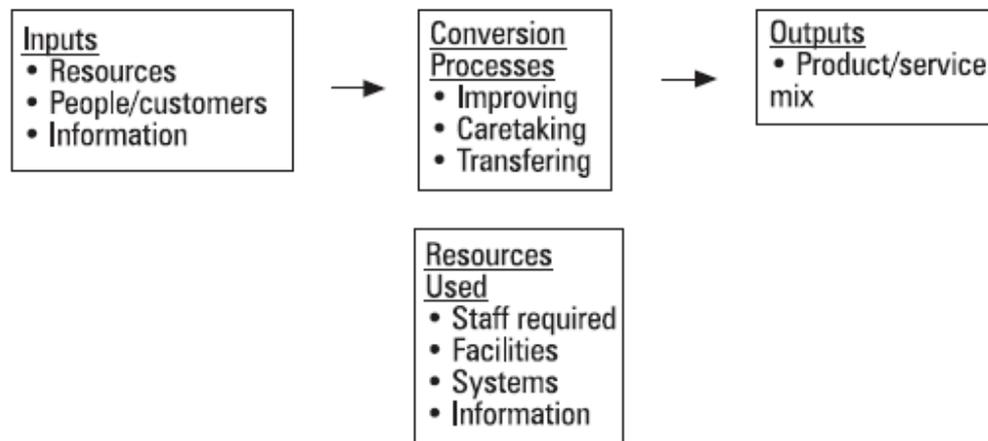


Figure 2.5: A process view of knowledge management depicting resource utilisation in organisations (Armistead, 1999)

Knowledge management has been identified as a management philosophy that has the ability to impact on all aspects and areas of an organisation, specifically the processes and information and communication structures in the organisation (De Gooijer, 2000:303). For knowledge management to contribute to organisational efficiency there is a need for various organisational processes and departments to work together and for functional silos to be eliminated. Knowledge management should also be viewed as a long-term organisational strategy and it must be understood that its value will not infiltrate the entire organisation in the short run (Yeh, Lai and Ho, 2006:805).

Knowledge management cannot be imposed on an organisation from the top; it is crucial that the initiative enjoys the support of the entire organisation to guarantee success. Knowledge management involves various changes in an organisation and its implementation is dependent on the absolute support of senior management, as these changes have an impact on the operations,

management style and value system of the organisation (Abell and Oxbrow, 1999:4).

Rylatt (2003:3) proposes the following for an effective knowledge management strategy when implementing knowledge management initiatives in an organisation:

- Know your business and effectively place your knowledge.
- Create an environment that is conducive to idea generation.
- Eliminate harassment, information hoarding and backbiting.
- Promote group intelligence.
- Highlight the importance of sharing.

Furthermore, there is a need to establish an organisational memory or knowledge repository when implementing a knowledge management initiative. This fundamentally involves restructuring existing reports and documents from all parts of the organisation and extracting further information related to the document, such as lessons learned. These documents must then be made available electronically and be freely accessible (Lehaney, 2004:238). Regardless of the type of organisation, there is no doubt that acumen and insight will give an organisation a winning edge. Therefore, leveraging the advantages of knowledge in an organisation requires long-term commitment and leadership that values “trial and error” and a dedication to innovation and continuous improvement (Rylatt, 2003:5)

Thus, when implementing a knowledge management initiative in an organisation it is essential to consider various facets of the organisation and their subsequent impact on the knowledge management initiative. Yeh, Lai and Ho (2006:800) state that there are certain knowledge management enablers in an organisation that are necessary for the achievement of organisational effectiveness:

- the organisational culture
- the human resources
- the information technology

- the strategy and leadership.

A thriving knowledge management process is dependent on the interaction between these various elements, and organisations should steer clear of merely associating knowledge management with technologies and information systems.

## **2.5 CONCLUSION**

This chapter provided a broad outline of the concept of knowledge and more specifically knowledge management and those features comprising the knowledge management process within organisations. Particular attention was drawn to the steps of the knowledge management process and various model representations of the process. External organisational phenomenon that impact on knowledge management were also identified. In this study, the four knowledge management enablers identified by Yeh, Lai and Ho (2006), namely organisational culture, human resources, information technology and strategy and leadership were used as a basis for research. Organisational structure was also considered as an enabler. The following chapter will present an overview of each of these enablers and highlight their relevance to the knowledge management process in organisations.

## CHAPTER 3

### ORGANISATIONAL IMPLICATIONS OF KNOWLEDGE MANAGEMENT

#### 3.1 INTRODUCTION

Within the organisational context, the process of deciding what knowledge will be generated, utilised and shared, how it should be shared and with whom it should be shared forms the basis of managing knowledge. The practice of using and re-using this shared knowledge ultimately generates value for the organisation (Cong and Pandya, 2003:27). According to Alavi and Leidner (2001:108) organisations are now mostly viewed from a knowledge-based angle that suggest that services delivered are dependent on the way that resources are pooled and practically utilised, which subsequently is a function of the organisation's knowledge. This expertise is rooted within and transmitted via the organisational culture, customs, systems, procedures, records and the individual members of the organisation's workforce (Alavi and Leidner, 2001:108). Hence, Alavi and Leidner (2001:108) point out that because "knowledge-based resources" are typically hard to emulate and generally multifaceted, the perspective of the organisation as being knowledge-based puts forward the notion that knowledge resources may generate a lasting competitive advantage.

Accordingly, the South African Government Information Technology Officers Council (2004) states that knowledge management is a fundamental element for effective service delivery as it encourages a better comprehension of public service competencies, efficiencies and the lack thereof, citizen needs, support systems and resources, strategic objectives, institutional and performance requirements, and decision alternatives.

In addition to improvements in service delivery, knowledge management also holds a number of benefits for other processes in the organisation. Cong and Pandya (2003:27) argue that the associated benefits of knowledge management occur on both the individual and the organisational level.

At the individual level, knowledge management provides individuals with the prospect of improving their skills and gaining experience by participating in team work, sharing knowledge with others and learning, and in doing so, of enhancing their own performance which subsequently leads to healthier career development (Cong and Pandya, 2003:27). Thus the process of knowledge exchange and dissemination contributes to building the capacity and developing the skills of employees.

At the organisational level, Cong and Pandya (2003:27) state that knowledge management provides significant advantages for the organisation at large; such as increased performance through more efficient, productive, innovative and quality processes. These advantages are achieved by means of more informed decision making, streamlined processes, reduced duplication, and more innovation as well as advanced data integrity and greater cooperation. For the public sector organisation this means that knowledge management can contribute to cost efficiency and improved service delivery (Cong and Pandya, 2003:27).

Given the above-mentioned benefits associated with knowledge management for the organisation, it is important to bear in mind that these benefits can only be achieved if knowledge management is supported by other organisational processes, a suitable structure and an environment that is conducive to enhancing the knowledge management process. In this regard it is necessary to consider the role of four knowledge management enablers, namely organisational culture, human resources, information technology and strategy and leadership as identified by Yeh, Lai and Ho (2006:800). Additionally, the impact of organisational structure on knowledge management efforts will also be considered for the purposes of this thesis.

### **3.2 KNOWLEDGE MANAGEMENT AND HUMAN RESOURCES**

Knowledge exists only because of people, as it is derived from an individual's use of information combined with that person's experience. This combination is what makes individual knowledge valuable for organisations and society at large (Syed-Ikhsan and Rowland, 2004a:238). According to Abell and Oxbrow (1999:1) the purpose of knowledge management is to make the most of the combination of people, processes, services and products that characterise and identify an organisation. The type of knowledge management approach followed by an organisation must mirror the unique characteristics of the organisation so as to preserve these characteristics. Abell and Oxbrow (1991:2) further argue that organisational changes that accompany knowledge management must build on the organisation's strong points. However, it must be remembered that changes cannot occur without the involvement of people. As a result, an organisation's human resources – including its leadership – have an impact on the organisation's knowledge management activities.

To illustrate the importance of human resources in knowledge management efforts it is safe to conclude that knowledge is unable to subsist without a human being, as it is always created, distributed and used by a person (Sutton, 2006). Thus in the modern knowledge society in which the world currently operates, the importance of the knowledge worker is central to any knowledge activity. The knowledge worker performs work that involves the generation of constructive information and knowledge by means of accessing data, personal knowledge, external knowledge and organisational knowledge (Sutton, 2006). Knowledge workers are required to consistently utilise and convert knowledge from various sources to facilitate decision making and maintain adequate standards of business processes (Taylor, 2007: 39).

To effectively execute a knowledge management effort in an organisation, the contributions of knowledge workers who are prepared to build a culture conducive to knowledge management by sharing knowledge, generating new knowledge, networking and participating in knowledge-based activities are

vital (Sutton 2006). Sutton (2006) labels these knowledge workers as “knowledge citizens” and calls attention to the need for organisations to create the appropriate environment by making obvious the rewards, recognition and other benefits associated with their role in the knowledge management efforts of the organisation.

The value of human resources in an organisation can constructively be termed “human capital”. Human capital may be defined as an embodiment of an organisation’s skills and knowledge (Taylor, 2007:25). More simplistically, human capital refers to the worth of an individual’s skills and proficiency in an organisation as well as personal behavioural traits such as enthusiasm. Taylor (2007:39) reasons that the effective development of human capital is reliant on individual and group learning as well as on the generation of explicit and tacit knowledge within the organisational parameters.

Moreover, when considering the influence of human resources on knowledge management within organisations, it is necessary to take into account various components of the human resources function. During the recruitment process, most organisations specify and assess an employee’s expected level of knowledge. However, employee knowledge and skills only hold value for the organisation once they are effectively applied to the employee’s new position within the organisation (Taylor, 2007:32). Syed-Ikhsan and Rowland (2004b:103) identify posting, training and staff-turnover as key criteria to consider in this regard. In terms of posting, Syed-Ikhsan and Rowland (2004b:103) argue that employees’ past experiences, skills and qualifications are valuable to an organisation and when employees are placed in the right position within an organisation, it is to be expected that new knowledge will be generated effortlessly. Despite existing employee knowledge and skill, employees are able to gain valuable knowledge from induction and training programmes (Taylor, 2007:33). Adequate training that allows employees to transfer their knowledge into the organisation’s practices, processes, policies and traditions have significant benefits for both the employees and the organisation (Syed-Ikhsan and Rowland, 2004b:103). Training and learning

programmes thus make favourable contributions to an organisation's human capital in the long run (Taylor, 2007:34).

Additionally, the occurrence of high staff turnover also poses problems as far as knowledge management is concerned in that vital organisational knowledge may be lost in the event of employees retiring or moving on to other positions. It is crucial that organisations have suitable courses of action and adequate human resources strategies to prevent the loss of organisational knowledge (Syed-Ikhsan and Rowland, 2004b:104). Therefore, organisations should implement people-centred knowledge management strategies that foster learning, encourage sharing through motivation and teamwork, and allow employees ample time to learn and reflect on their knowledge (Skyrme, 1999:54).

### **3.3 KNOWLEDGE MANAGEMENT AND ORGANISATIONAL CULTURE**

Lehaney et al. (2004:239) argue that in order to effectively manage knowledge in an organisation, it is important to acknowledge the vital role of the organisational culture in determining how knowledge sharing within the organisation is managed. Organisational culture refers to the unique mix of values, beliefs and models of behaviour in an organisation and it is representative of the organisation's core values that dictate the behavioural norms of employees (Yeh, Lai and Ho, 2006:797). Thus, the manner in which people within an organisation relate to each other, especially in a group and a team situation, is important in the knowledge management process (Lehaney et al., 2004:239).

Organisational culture cannot easily be taught or transferred, which means that absorbing the organisational culture, which symbolises collective tacit knowledge, is a very difficult process (Taylor, 2007:30). The organisational culture epitomises both the significance and the benefits of organisational knowledge and it impacts on employees' willingness to share their knowledge and provide it as an input into the organisation (Yeh, Lai and Ho, 2006: 797).

Yeh, Lai and Ho (2006:780) therefore argue that effective knowledge management is dependent on the organisational culture, the management style and the collaboration across and between different organisational levels. Therefore, if an organisation has an all-inclusive knowledge management system in place but does not have a supportive organisational culture, the effectiveness of knowledge management in the organisation is restricted. Thus, the real value and meaning of knowledge only becomes apparent when it is viewed in the context of culture (Lehaney et al., 2004:17).

Accordingly, Van Heeswijk (2004) argues that cultural change is a key component of effective knowledge management and that the necessary behavioural changes among employees are required to establish an environment where knowledge is considered as a collective benefit and where organisational members are also encouraged to participate in knowledge development as part of their duties. The culture of an organisation is fashioned by the people, and this culture is a fundamental cornerstone and prevailing force for knowledge management, which ultimately affects how the organisation acknowledges and cultivates the knowledge management initiative (Sutton, 2005).

McDermott and O'Dell (2006) state that an organisational culture that supports knowledge sharing within the organisation displays a discernible link between sharing knowledge and practical business issues. They further point out that the practice of knowledge sharing is firmly connected with the established core values of the organisation. Furthermore, an organisation that has a culture supporting knowledge management will introduce its knowledge management endeavours in a way that will match the organisation's management approach on the whole. In addition, an organisational culture that is conducive to knowledge management will also ensure that knowledge-sharing practices take into consideration the networks in which employees are engaged on a daily basis in their jobs. There should also be participation in and support for knowledge sharing by higher level employees and managers (McDermott and O'Dell, 2006). In addition, Lehaney et al. (2004:239) highlight the importance of trust, which is a part of

culture and is regarded as a cornerstone of successful teamwork, a lack of trust tends to create an unwillingness to share information.

According to Skyrme (1999:184) an organisational culture that fosters knowledge sharing and enhancement displays the following characteristics:

- a transparent organisational milieu
- an empowered workforce
- a dynamic learning environment
- a continual quest for novel means of development and innovation
- concentrated, transparent and extensive communication
- periods of reflection, learning and experimentation
- communication and interaction across and within groups
- objectives and performance gauges that are synchronised across the organisation
- an inclination toward extensive knowledge sharing among individuals who make up the workforce.

Thus, McDermott and O'Dell (2006) deduce that in an organisation characterised by a knowledge-sharing culture, ideas and information diffusion among peers and co-workers is inherent; it is not an activity forced upon employees – knowledge sharing is expected among employees and it is considered as the right thing to do.

### **3.4 KNOWLEDGE MANAGEMENT AND INFORMATION AND COMMUNICATION TECHNOLOGIES**

Information technology is an important knowledge management enabler as it is central to the maintenance and organisation of knowledge management efforts (Yeh, Lai and Ho, 2006:799). According to Yeh, Lai and Ho, (2006:799) information technology supports knowledge management by facilitating quick searching, access to and retrieval of information, which in turn encourages cooperation and communication between members of an organisation.

Information technology tools are essential in implementing an effective knowledge management effort (Syed-Ikhsan and Rowland, 2004b:102). Various information technology tools are available to organisations to aid effective knowledge management. The group of information technology tools that are utilised for the purpose of knowledge management are known as knowledge management systems (Alavi and Leidner, 2001:114). When an organisation considers employing a specific knowledge management tool it is necessary to do an analysis of the organisation and current systems in order to determine which tool would be best in facilitating the organisation's requirements (Taylor, 2007:60). Thus, when knowledge management tools are introduced into an organisation it is essential to identify what worth the tool will have for specific business processes, how the tool will be integrated with current systems and what degree of staff training and development would be required upon implementation of the tool (Taylor, 2007:60). Only when the worth of the tool for the organisation is established and its value is overtly recognised, then it is most likely that it will be utilised successfully (Taylor, 2007:61).

Although it is beyond the scope of this thesis to discuss each of these tools, it is worthwhile mentioning them. Information technology tools that support knowledge management efforts include, among others, collaborative technologies such as groupware, intranets, and other collaborative software tools such as email, discussion boards, videoconferencing, project support tools, workflow tools, e-learning tools, and virtual working tools. Additionally, content management tools such as taxonomies, thesauri, search engines and portals, as well as knowledge generation tools such as data mining, and knowledge development tools such as simulation and modelling, should be considered.

According to Skyrme (1999:71) the category of knowledge management tools that holds the most benefits for knowledge management practices is collaborative software tools. These tools, which include intranets and groupware, have the most significant influence and impact on organisational

knowledge because these technologies connect various individuals and encourage collaboration that would otherwise not be possible. In addition, collaborative technologies provide widespread access to information and create a channel for the flow of knowledge (Skyrme, 1999:95).

There is no doubt that information technologies are crucial in aiding effective knowledge management. However, it must be reiterated that information technologies are merely knowledge management tools that facilitate the process of creating a knowledge framework but they are not a single solution to problems regarding knowledge management as is commonly thought (Lundvall and Nielsen, 2007:208).

### **3.5 KNOWLEDGE MANAGEMENT AND STRATEGY AND LEADERSHIP**

Knowledge management in an organisation is largely guided by the organisation's strategy. Likewise, the implementation of a knowledge management effort requires a strategy based on contributions by various members of the organisation (Yeh, Lai and Ho, 2006:795). Deriving from the organisation's strategy are the various organisational policies and programmes. These policies and programmes must be aligned with each other and should be mutually supportive of an organisation's knowledge management strategy (McElroy, 2003:60). The organisation's knowledge management strategy should thus be articulated in accordance with specific, over-arching policies and programmes (McElroy, 2003:61). Furthermore, there are certain building blocks that must be considered in order to ensure that an organisation's knowledge management strategy is effective. For these building blocks to be effective, the organisation needs to meet the following requirements (Rylatt, 2003:3):

- Know your business and effectively place your knowledge.
- Create an environment that encourages people to voice their ideas.
- Eliminate harassment, "information hoarding" and spitefulness among employees.
- Promote collective intelligence.

- Highlight the importance of sharing.

Hence, an effective knowledge management strategy requires long-term commitment from all organisational members, the ability to be receptive to changes in both the internal and the external organisational environment, and leadership that demonstrates an enthusiasm for improvement. Furthermore, an effective knowledge management strategy must take advantage of knowledge-enabling technological developments to allow the organisation to be more responsive in terms of service provision and developing relationships (Skyrme, 1999:33).

Related to a knowledge management strategy, is the concept of leadership. The implementation of a knowledge management effort requires adequate support and dedication from top management as this influences how resources and time are allocated for executing the knowledge management plan (Yeh, Lai and Ho, 2006:797). A successful knowledge management strategy therefore runs parallel with exemplary leadership that values “trial and error” and shows a commitment to innovation and continuous improvement (Rylatt, 2003:5). In addition, leadership within the realm of knowledge management must display certain traits that are conducive to knowledge management. These traits include the ability to create a milieu for intense discussions and dialogue about specific topics that are relevant, and to eliminate barriers traditionally built by the chain of command and rank within the organisation (Rylatt, 2003:7).

Knowledge leaders, according to Skyrme (1999:145), possess a number of characteristics that distinguish them from ordinary managers. Efficient knowledge leaders promote organisational success by effectively utilising knowledge. These knowledge leaders are usually visionaries who are clear communicators, participative, inspirational, and proactive and who display an unfeigned keenness to learn (Skyrme, 1999:145).

### **3.6 KNOWLEDGE MANAGEMENT AND ORGANISATIONAL STRUCTURE**

Organisational structure may be defined as the manner in which individuals and posts are organised to make the performance of the organisation's work possible (Syed-Ikhsan and Rowland, 2004b:101).

In terms of organisational structure and the impact on knowledge management efforts, Nonaka (1994:30) argues that a top-down bureaucratic structure is not conducive to the process of creating knowledge within an organisation, as only top management have the power and ability to create information which they use as a mere tool instead of a tangible product. Conversely, in a bottom-up organisational model only lower- and middle-level employees are responsible for knowledge creation, which is also not favourable.

What is required, however, is a model that takes into account all organisational members who work collectively in a horizontal and vertical fashion. This means that no particular department or group has the sole responsibility for knowledge generation in the organisation. The organisational structure must therefore promote communication across and within organisational boundaries and strengthen interdependence of teams and networks (Skyrme, 1999:185).

McElroy (2003:91) therefore argues that knowledge management should not be positioned in a specific area within the organisational structure, but that it should be a fixed practice by all organisational members that is merely coordinated by senior management. Thus it is imperative that when an organisation embarks on a knowledge management strategy, it realigns its organisational structure to facilitate the creation and effective flow of knowledge throughout the organisation.

With regard to the most suitable organisational structure to enable effective knowledge management, Skyrme (1999:32) maintains that the network design

holds the most significant benefits. The networked organisation comprises virtual teams and organisations that allow the organisation to generate greater value via a variety of unique skill combinations that may be flexibly pooled when required (Skyrme, 1999: 33). The networked organisation, comprising of networks of self-managed teams, is able to respond rapidly to changes and to reconfigure as needed. Thus in the networked organisation, teams become the central units of production within the organisation.

### **3.7 CONCLUSION**

Knowledge management holds significant benefits for organisations; however the successful implementation of a knowledge management effort in an organisation is dependent on a number of distinct but interdependent factors that have been discussed in this chapter. The preceding chapter provided a general background to knowledge management; whereas this chapter expressly identified and defined the organisational factors that have an impact on knowledge management initiatives within organisations. Given this general theoretical foundation of knowledge management in organisations, the next chapter will focus on knowledge management in the public sector.

## CHAPTER 4

### KNOWLEDGE MANAGEMENT IN THE PUBLIC SECTOR

#### 4.1 INTRODUCTION

Most examples of knowledge management applications are to be found in the private sector, which utilises the knowledge management process as a means of attaining a competitive edge. The manifestation of knowledge management within the public sector service setting, albeit not unheard of, is less prevalent (Fowler and Pryke, 2003:255). However, as governments are adopting policies that recognise the “information age” in which they currently operate, there is a stronger inclination toward knowledge management within the government sphere (Fowler and Pryke, 2003:255).

Considering the reforms within the public sector over the past few decades, it is evident that most public sector organisations now follow a businesslike approach where the focal point of service provision is responding to citizen needs and providing integrated and comprehensive service delivery. Consequently, the public sector has also begun to accept the idea of knowledge management as a means of attaining a competitive edge by utilising the human and intellectual resources within their organisations (Fowler and Pryke, 2003:258).

According to Fowler and Pryke (2003:261) knowledge management holds three major implications for public sector organisations that embody fundamental aspects of the organisation-wide knowledge management strategy:

- Knowledge creation
- Knowledge accumulation and illustration
- Knowledge transmission.

Knowledge management holds a number of benefits for public sector organisations. Cong and Pandya (2003: 27) have identified these benefits as follows:

- Knowledge management creates the opportunity for employees to develop their skills, performance and experience through group work and knowledge sharing.
- Knowledge management improves organisational performance by means of better quality, innovation, productivity and efficiency.
- Knowledge management facilitates better decision making, more collaboration, restructuring of organisational processes and a decline in duplication of work, consequently cutting operational costs and improving service delivery.
- Knowledge management increases the financial worth of an organisation.
- Knowledge sharing creates value in an organisation and strategically enables a competitive advantage.

Although the significance of knowledge management for the public sector is apparent, many public sector organisations have shown disinclination toward exploring what knowledge management has to offer for their organisations (Edge, 2005:43). According to Cong and Pandya (2003:25) there is a need for increased knowledge management awareness among managers and lower-level personnel in the public sector. Given the many benefits associated with knowledge management in the public sector, several factors discourage public sector knowledge management efforts. These include the sheltered nature of most public sector work, the need of employees to preserve and guard their personal knowledge, and the continual cut-backs on centrally allocated resources (Edge, 2005:42).

Furthermore, Edge (2005:45) states that in addition to the above-mentioned factors, public sector organisations face two noteworthy challenges with

regard to implementing knowledge management efforts, namely a “culture of resistance” and a “culture of hoarding knowledge”.

This so-called “culture of resistance” implies that public sector employees are unwilling to accommodate change and accept innovation within the organisation. The “culture of hoarding knowledge” as described by Edge (2005:45) implies that public sector employees lack the ability and the willingness to share knowledge and intrinsic skills. Yao, Kam and Chan (2007:54) argue that due to the lack of incentives and the bureaucratic nature of the public sector, employees may see knowledge management practices as not being part of their job and may thus develop a culture of resistance to knowledge sharing. Yao, Kam and Chan (2007:55) further argue that there is a common perception within the public sector that knowledge means power and that knowledge sharing is symptomatic of a loss of power. This “knowledge is equal to power phenomenon” can be attributed to the hierarchical structure of most government departments, which undesirably deters knowledge sharing and information flow (Yao, Kam and Chan, 2007: 55).

These two traits, namely resistance and hoarding knowledge, have negative ramifications for knowledge management efforts within the public sector. A need therefore exists to alter this negative mindset and to encourage a culture of knowledge sharing and acceptance of innovation and change through the exchange of knowledge and information.

As previously mentioned, there is an emerging trend toward utilising knowledge management practices within government departments. There are a number of examples of successful knowledge management activities within government departments across the world. Knowledge management initiatives have been internationally implemented to some extent in various spheres of government and in various departments. Australia provides a valuable case in point to illustrate knowledge management initiatives in government. The Australian Government Information Management Office (AGIMO) within the Department of Finance and Administration are

responsible for promoting and supporting best practice in knowledge and information management within government departments so as to improve productivity and service delivery. AGIMO has subsequently devised a checklist for government departments regarding issues to consider in managing knowledge within organisations. This checklist serves as a guide to all knowledge management staff and IT managers (AGIMO, 2004).

This type of initiative can serve as a practical example of how governments can initiate and ultimately manage successful knowledge management practices in various departments.

#### **4.2 KNOWLEDGE MANAGEMENT IN THE CONTEXT OF THE SOUTH AFRICAN PUBLIC SECTOR**

Given the background of knowledge management in the public sector, it is useful to evaluate how the South African government is faring in this regard. Within the context of the South African public sector, knowledge management is receiving increased priority. The Department of Provincial and Local Government (Republic of South Africa, 2007) has identified knowledge management as a key managerial competency for senior managers at local government level. This requirement for local government senior managers involves the ability to advance knowledge creation and sharing as a means of developing the combined knowledge of the local government (Republic of South Africa, 2007).

Although emphasis has been placed on managerial knowledge management competencies, not enough prominence is given to the need for organisation-wide implementation of knowledge management systems. Initiatives by the South African government to propel knowledge management practices within government organisations include the establishment of a Knowledge Information Management (KIM) work group within the Government IT Officers (GITO) council. According to GITO (2004) there are already a number of knowledge management practices within government departments. However,

these practices are not all-inclusive of knowledge management processes that are required for further development.

The Department of Public Service and Administration (Matomela, 2008) has identified a number of motives to support the case for knowledge management in South African government departments. These motives are the following:

- The awareness of changes brought about by the knowledge-based society in which the government operates
- The need for learning and sharing experiences via linkages with the global community
- The need to document and consequently learn from the vast storages of knowledge generated through the country's transformation process
- The need to capitalise on triumphs and to learn from errors that have been encountered in various areas of service delivery
- The call for creative and innovative methods of service delivery that are more efficient and responsive to customer needs
- The need to generate expertise within government departments so as to achieve a better grip on institutional knowledge.

The Department of Public Service and Administration (Matomela: 2008) has also recognised the need to put knowledge management into operation within government departments. This department is subsequently cultivating a culture of knowledge sharing by means of “internal learning sessions”, where knowledge is exchanged among employees through a number of modes such as newsletters, web pages and discussion boards. Other means of employing knowledge management initiatives and cultivating a sharing culture include the compilation of knowledge registers in which knowledge and skills are recorded, capacity-building initiatives and harvesting and effectively utilising internal employee skills as opposed to external hired or consultants' skills.

The Department of Public Service and Administration (Matomela: 2008) also suggests the establishment of a “knowledge management steering

committee” to lead the implementation of the knowledge management effort. It has also expressed the need to start with applications that will guarantee small successes in managing knowledge.

At local government level, cognisance must be taken of the fact that South African municipalities function in a milieu characterised by greater uncertainty and competition than in the past. Local government institutions across the globe are faced with demands to change and modernise their operations so as to facilitate development in the new “knowledge economy” (Haricharan, 2004). To keep abreast of these changes and to remain globally competitive, South African local governments need to become aware of the significance of knowledge management in achieving organisational and subsequently service delivery successes.

As mentioned before, some South African municipalities have shown enterprise and have implemented knowledge management initiatives with great success. A working example of such a knowledge management initiative at local government level is that of the City of Johannesburg’s Knowledge Management and Innovation unit within the Johannesburg Innovation and Knowledge Exchange (JIKE), which came into operation in 2002. JIKE follows a holistic approach to knowledge and innovation and its work is concentrated on three focus areas:

- Constructing systems to exploit the knowledge present in the city
- Sharing knowledge and gaining external expertise
- The codification of knowledge and the creation of concrete multimedia products generated from knowledge within the city.

The Knowledge Management and Innovation unit is responsible for gathering and supporting the city’s knowledge resources. Furthermore, the unit is responsible for recognising various knowledge management opportunities and new projects and utilising these to construct launch pads for managing knowledge resources across the organisation (City of Johannesburg, 2007). These activities include the construction of a knowledge database and a

database of expertise within the city as well as the documentation of commendable models in the city which have been devised as case studies on lessons learned, innovation and best practice. The City of Johannesburg also engages in planned partnerships with other parties by means of communities of practice (CoPs). Communities of practice can simply be defined as social arrangements where learning, operational functions and innovation are shared in daily work-related activities (Huysman, 2004:68). A more in-depth definition defines a CoP as a process of learning that occurs by the active participation in community practices during which time identities relative to the communities are built (Huysman, 2004:68). The City of Johannesburg is engaged in four communities of practice for intergovernmental relations, knowledge management, inner-city regeneration projects and organisational performance management.

Moreover, knowledge management activities by the city also support an executive management development programme and networking with businesses in the city (City of Johannesburg, 2007).

Another example of a knowledge management initiative at local level is that of the Buffalo City Municipality. The Buffalo City Municipality has devised a KM strategy and set a series of objectives to attain their knowledge management goals. The knowledge management strategy comprises a series of projects that include:

- The training of personnel and councillors
- Knowledge championship that involves knowledge management facilitation at department level
- The documentation of case studies, which is a knowledge-capturing and sharing plan
- An online expert locator system
- The capturing of the institutional memory, which Buffalo City defines as a knowledge retention initiative
- A knowledge management portal that serves as a central repository.

This comprehensive knowledge management strategy of the Buffalo City Municipality was presented at the South African Cities Network (SACN) and the South African Local Government Association (SALGA) Knowledge Management Reference Group meeting during February 2008. The SACN Knowledge Management Reference Group was launched in 2004 in an attempt to encourage shared learning and good governance between different spheres of government (Mabindla, 2008).

The second SACN Knowledge Management Reference Group meeting, along with SALGA, was hosted by the Buffalo City Municipality. The purpose of the meeting was to introduce other municipalities to the reference group, establish a system of support for knowledge management practitioners in South Africa and improve intergovernmental relations (Mabindla, 2008).

Various other South African local government knowledge management initiatives exist on a smaller scale and have not been as widely documented as the City of Johannesburg's initiative. However, when considering the knowledge economy in which the world currently operates, it is clear that the South African government has a long way to go in making significant strides in knowledge management, especially at local government level.

#### **4.3 THE LEGAL FRAMEWORK SUPPORTING KNOWLEDGE MANAGEMENT IN SOUTH AFRICA**

The most important legislation related to the legal aspects of knowledge management is the Constitution, Act 108 of 1996. The constitution is the supreme law of South Africa and lays the foundation for all other legislation enacted in the country. Chapter 2 of the constitution contains the Bill of Rights, which sets out various rights afforded to South African citizens. With regard to legal rights in terms of managing knowledge and information, certain sections of the Bill of Rights are of significance. These include the following:

- Section 14(d) of the Bill of Rights, which holds that everyone has the right to privacy and may not have the privacy of their communications infringed

- Section 16, which refers to freedom of expression
- Section 32, which holds that everyone has the right of access to information.

(Republic of South Africa, 1996)

Other legislation of significance stemming from the provisions in the Bill of Rights includes the Electronics Communications Act, No. 36 of 2005, the Regulations of Interceptions of Communications Act and Provision of Communication-related Information Act, No. 70 of 2002, and the Promotion of Access to Information Act, No. 2 of 2000.

The Electronics Communications Act, No. 36 of 2005, was enacted with the principal objective of providing a regulatory framework for electronic communications in South Africa. The act also provides for, among others:

- The promotion of competition within the ICT sector
- Research and development within the ICT sector
- The distinct distribution of responsibility and tasks in formulating policies and regulations within ICT
- Information security and the reliability of networks.

(Republic of South Africa, 2005)

The Regulation of Interceptions of Communications Act and Provision of Communication-related Information Act, No. 70 of 2002 seeks to control the various aspects related to the interception of communications, the screening of signals and radio frequencies, and the availability of certain information related to communications.

Furthermore, the Promotion of Access to Information Act, No. 2 of 2000, has as its primary objective “to give effect to the constitutional right of access to (i) any information held by the state; and (ii) any information that is held by another person and that is required for the exercise or protection of any rights”. The act seeks to ensure that measures of accountability, transparency and good governance are exercised so as to promote better

participation and decision making and to give effect to various rights in terms of the act (Republic of South Africa, 2000).

These very important pieces of legislation are what govern knowledge and information management not only in public sector institutions but in South Africa in general.

#### **4.4 CONCLUSION**

Knowledge management in the public sector is an emergent phenomenon that offers government departments significant benefits. With the rise of the knowledge economy, many government policies are taking knowledge management into consideration and there is thus a stronger inclination toward knowledge management practices within the government policy sphere. Despite the benefits associated with knowledge management there is still great resistance to adopting knowledge management practices among public sector personnel. Thus there is a need for greater consciousness of knowledge management and its benefits among public sector personnel.

Despite the rise of knowledge management and the many benefits associated with it, some public sector organisations are still reluctant to employ knowledge practices. Examples of knowledge management, although few in number, in public sector organisations and specifically at local government level in South Africa do exist. A good illustration of such knowledge management practices is the example of the City of Johannesburg's knowledge management initiative named JIKE. The South African constitution also contributes to accommodating knowledge management by serving as a basis for the legislative framework that is conducive to employing knowledge management initiatives within public sector organisations.

## **CHAPTER 5**

### **CASE STUDY: KNOWLEDGE MANAGEMENT AT STELLENBOSCH MUNICIPALITY**

#### **5.1 BACKGROUND TO STUDY**

Stellenbosch Municipality was selected as a case study to determine the readiness of local government institutions to effectively implement knowledge management practices by assessing the incidence of knowledge management enablers at the municipality.

Stellenbosch Municipality is a local government organisation in the Western Cape province of South Africa that incorporates the neighbouring towns of Stellenbosch, Franschhoek and Pniel. The municipality is made up of nine directorates comprising various sub-departments. These directorates include Civil Engineering Services, Community Safety, Corporate Services, Electrical Engineering Services, Financial Services, Housing Services, Planning and Environment, Social Development Services and Strategic Services.

For the purpose of this study three directorates were selected, namely Corporate Services, Financial Services and Strategic Services. Within Corporate Services, the researcher focused specifically on the human resources department and the information technology department.

The study was conducted using a series of interviews with senior personnel members in the three directorates identified for the purpose of this study. Interviews were conducted to determine whether there was an awareness of knowledge management in the various departments and whether any knowledge management practices were in place.

## 5.2 STRATEGIC SERVICES

The first directorate assessed was the Strategic Services directorate incorporating the Integrated Development Planning (IDP) department. Interviews were conducted with the director of Strategic Services, Claudia Koopman and the IDP manager, Leon Fourie.

The interview was centred on questions about four organisational elements, namely organisational culture and strategy, structure, human resources, and information and communication technologies (ICT).

From the interview with the personnel of Strategic Services, it emerged that knowledge management was a familiar concept in the Strategic Services directorate. The department adopted a new microstructure in 2007. This new microstructure reflects all the organisational needs of the department and addresses the need for knowledge management. Through the implementation of the new microstructure, a position for a knowledge manager was created, although at the time of the interview the position was still was not filled.

The Strategic Services department also has a number of information systems and knowledge management practices in place. These systems include a *Strategic Management System (SMS)*, which is a Microsoft Access Database system that is utilised to capture and manage IDP and budgetary information. This system was devised and implemented by the IDP manager who is also responsible for the management of the systems.

Other knowledge management initiatives initiated by the Strategic Services department is the municipality's *e-library*. This system is an electronic archive of documents and policies related to the IDP and the Strategic Services department. The *e-library* makes all the electronic documents available to municipal staff and councillors.

From the interview, it emerged that although the organisational structure is conducive to knowledge management and various information technologies supporting knowledge management are in place, the organisational culture does not wholly support the concept of knowledge management.

Koopman (2007) indicated that although information sharing among personnel members was prevalent, the department's attempt at fully implementing knowledge management had not quite taken off. Koopman (2007) maintained that strategic measures were required to convince personnel to accept knowledge management and that this would involve identifying key strategic areas for knowledge management. According to Koopman (2007) the problems associated with accepting knowledge management were largely due to a general lack of knowledge of how to effectively utilise information and reluctance on the part of personnel to add new information to their present workload.

Fourie (2007a) thus used the *Strategic Management System (SMS)* to illustrate the culture of reluctance among personnel. Fourie (2007a) explained that even though *SMS* had been implemented in the Strategic Services department there was still a lack of understanding of what it entails. Fourie (2007a) maintained that what was required was "buy in" from other departments and senior personnel; however it was difficult to change the mindsets of top management.

### **5.3 INFORMATION TECHNOLOGY**

The second directorate assessed at Stellenbosch Municipality for the purposes of this study was Corporate Services. As previously mentioned, two departments within corporate services were selected for this study, namely human resources and information and communication technologies.

Within the Information and Communication Technology department, the researcher conducted an interview with the ICT managers, Johann Bekker and Robert Muller.

The ICT department is a service department that facilitates communication between the various municipal departments. In assessing the general awareness and organisational culture pertaining to knowledge management in the ICT department it became clear that the senior personnel of the ICT department were not familiar with the concept of knowledge management. From the interviews it was apparent that a culture of knowledge sharing was not flourishing. According to Bekker (2007) all departments within the municipality operate within functional silos where each department considers their own objectives as important and thus departments do not collaborate and share information with other departments when tackling certain projects or programmes. As a consequence of these functional silos, very little interdepartmental knowledge sharing occurs.

Regarding organisational structure, the ICT department, like the rest of the municipal departments, has also adopted the new microstructure. According to Muller (2007) the ICT department has not grown in relation to the municipality's growth in general. The ICT department has lagged behind in certain areas, especially in terms of knowledge management and the department therefore views the microstructure as a means to reorganise the department to align itself with certain functions of the municipality. This realignment has resulted in the identification and creation of new functions such as systems administration, information security and desktop support. According to Muller (2007) the aim of the microstructure is to build capacity and get the ICT department in line with the greater objectives of the organisation.

Although the municipality has a number of information and communication technologies in place, these technologies do not facilitate knowledge sharing and management within the organisation. According to Bekker (2007) various information systems are in place but there is no single database that serves as a central information repository. What this means is that the same information is positioned at different places in the organisation on different systems. Each municipal department has its own database system but no cross-departmental knowledge sharing is supported. The municipality also

does not use advanced information systems such as decision support systems (DSS), expert systems and management information systems. Management information systems are used in some departments, but on a small scale. Another deterrent to knowledge sharing within departments is the fact that the municipality has outsourced certain functions to consultants who operate information systems independent of the municipality. Because the consultants have their own systems, the municipality has no access to the information on these systems. An example of this provided by Muller (2007) is the debt collection function of the municipality, which has been outsourced. The consultants involved have their own management information system and the finance department had no direct access to the information on the system.

#### **5.4 FINANCIAL SERVICES**

The third department that was assessed was the financial services department. This assessment involved an interview with Mr Ian Kenned, the director of financial services. From the interview it is evident that within the financial services department, there is not a broad-based understanding of what knowledge management is. According to Kenned (2008) his understanding of knowledge management is that it concerns the dissemination of information. Knowledge management has not been identified as a vital aspect within the finance department and no formal measures have been taken to facilitate the implementation of a knowledge management strategy. Kenned (2008) indicated that although no formal strategy existed for knowledge management, their approach was to create a favourable environment and opportunities to facilitate communication flows. Concerning the influence of organisational structure on knowledge management, Kenned (2008) felt that the current organisational structure was not conducive to effective knowledge management, purely because of the size of the organisation. It is therefore clear that although there is communication and a degree of information exchange among the nine directorates, these directorates and their respective departments essentially function in silos. Within the finance department communication flows are predominantly hierarchical, where information cascades from the top levels to

lower levels. In terms of the culture of knowledge sharing, it appears that the department encourages this through various training and development initiatives where employees receive on-the-job training and skills development.

As regards the information and communication technologies utilised by the department, Kenned (2008) deemed it as being relatively effective but acknowledged that it was in need of upgrading. Within the precinct of the department, the information technologies can be considered as user-friendly. However, officials in other departments are not able to access this information easily nor do they always comprehend it. The human resources appointments within the finance department are all competency based and employees need to possess certain skills and meet specific technical requisites. Employee turnover within the department is relatively low and this has a positive impact on knowledge retention within the department (Kenned, 2008).

## **5.5 HUMAN RESOURCES**

The fourth department assessed for the study was the human resources department that is part of the Corporate Services directorate. The interview was conducted with the human resources manager, Mr Johnny Cheminaise. From the interview with Mr Cheminaise, it is apparent that he has a clear grasp on the basic concept of knowledge management. According to Cheminaise (2008), his understanding of knowledge management is that it is about information and how it is utilised and that it also comprises general and institutional knowledge. Cheminaise (2008) indicated that he understood that knowledge management forms part of the management function and that it is a new concept with many components and that it is much more than just information technologies.

According to Cheminaise (2008) a need for knowledge management had not been identified within the human resources department up to that point, but within the entire organisation there had been talks about it. However,

Cheminaise (2008) acknowledged that a need for knowledge management existed within the organisation, especially so in terms of procedures and methodologies to capture and retain staff members' tacit knowledge.

Cheminaise (2008) was of the opinion that employee placement has a certain impact on organisational knowledge. He emphasised that one way of retaining organisational knowledge is to have a good blend of internal and external placements. Cheminaise (2008) maintained that a vibrant knowledge management culture requires the cross-pollination internal institutional knowledge and external or new knowledge. Cheminaise (2008) justified this argument by stating that focusing only on internal promotions causes in-breeding and subsequently no new knowledge comes into the organisation. Cheminaise (2008) thus believes that if new people are brought in from the outside knowledge frontiers are pushed back, which facilitates a growing knowledge base in the organisation.

However, there are certain limitations with regard to bringing in new people from outside, such as political pressure and directives to recruit internally. Even though there is pressure to develop people within the organisation, it is sometimes impractical because there are certain skills that need to be brought in from the outside. To illustrate this, Cheminaise (2008) referred to the finance department, where a mentor was brought in for the senior finance manager. The mentor accordingly transferred his knowledge and expertise to organisational members thus allowing them to progress within the organisation.

With regard to the impact of employee turnover on knowledge management, Cheminaise (2008) maintained that Stellenbosch Municipality's employee turnover rate is below 10%, which is considered relatively low. This low rate may be attributed to the fact that the municipality operates in a political environment. Since the municipality's exposure to staff turnover is limited, the effect on the municipality's knowledge management efforts is somewhat positive. The low staff turnover has allowed the municipality to build up an adequate knowledge base. However, the downside and pending challenge is

to employ the necessary mechanisms and structures to retain that organisational knowledge.

According to Cheminaise (2008) the municipality has a number of training and development initiatives in place which facilitates the creation of new knowledge, but no training currently exists for knowledge management as a discipline in its own right. The municipality has, however, engaged in several specific programmes focusing on knowledge management. This includes a network called LG-NET, which is a network for local governments to share information among municipalities, internationally. The municipality also has staff members who have received training and are champions for the South African Cities Network, which is a web-based resource-promoting knowledge sharing and transfer initiative. It comprises a database of case studies for the purposes of research and information sharing among municipal staff members.

In the interview, Cheminaise (2008) emphasised the fact that Stellenbosch Municipality has an extensive information technology platform and backbone. However, the primary limitation of this arrangement is that the various systems in different departments are not integrated. Cheminaise (2008) also accentuated the fact that the municipality does not have a knowledge management framework and strategy and he drew attention to the need to consider policies and procedures on how to go about implementing such a strategy.

With regard to organisational culture, Cheminaise (2008) maintained that, on the whole, knowledge sharing is encouraged by the organisation. This is practically illustrated by means of a monthly forum, where those in leadership roles, trade union representatives and other members of staff exchange information and discuss successes and failures within their departments. However, many departments still operate in silos and there is thus an ensuing reluctance to share information willingly. The municipality, which is in a transformative state, operates in a political environment and consequently

there are cases where people are reluctant to share information willingly. However, this tendency varies from individual to individual.

Like the other departments in the municipality, the human resources department has also employed the microstructure of the organisation. In this regard Cheminaise (2008) believes that there is a need to devise a knowledge management framework. The need also exists for someone to drive it. In terms of organisational structure, Cheminaise (2008) drew a distinction between the departmental structure and the overall organisational structure's influence on knowledge management activities. Within the human resources department there is a formal structure with four distinct levels, but communication flows across levels in all directions. As communication is not influenced by hierarchy, a culture of knowledge exchange is encouraged. In terms of the organisation as a whole, Cheminaise (2008) claimed that compared to five years ago, there is now a much more open communication flow within the organisation as the municipality has moved toward a more consultative and participative style of management.

Cheminaise (2008) pointed out that knowledge management in the municipality happens on a daily basis but not in the confines of a formalised framework. There are individuals in the organisation who are progressively implementing knowledge management practices but attention must be given to transforming the municipality into a learning organisation. A knowledge management system within the municipality will also be beneficial to the politicians as it will enhance the way they work. Nevertheless, implementing a knowledge management initiative will be a major change management issue and the concept of knowledge management will have to be convincingly sold to politicians. Cheminaise (2008) maintained that due to the major influence of the political environment on the municipality, politicians can play a critical role in terms of knowledge management with regard to receiving and disseminating information. However, if there is no political buy-in, knowledge management will never prosper and the municipality will not be able to reap the benefits knowledge management has to offer.

## **5.6 CONCLUSION**

It is evident from the interviews with various personnel members in the four departments spanning the Corporate Services, Financial Services and Strategic Services directorates of Stellenbosch Municipality, that knowledge management is still a relatively novel concept. Although the terminology associated with knowledge management is familiar, it appears that there is a general lack of comprehension as to what exactly comprises knowledge management. Furthermore, it emerged from the interviews that knowledge management practices have been put into effect to some extent but that no formal policy framework exists in this regard. Generally, the organisational culture, structure, information technology and human resources functions appear to be supportive of knowledge management efforts. The Strategic Services department have made some strides in knowledge management in their attempt to create a post for a knowledge management official, but as representatives from all the departments reiterated, senior management and political acceptance and approval are lacking.

## **CHAPTER 6**

### **AN ANALYSIS OF THE AWARENESS AND INCIDENCE OF KNOWLEDGE MANAGEMENT ENABLERS AT STELLENBOSCH MUNICIPALITY**

#### **6.1 INTRODUCTION**

Based on the research design, which comprised a case study, provision was made for an extensive literature review and a series of interviews with senior personnel members in selected departments at Stellenbosch Municipality. The departments assessed were the Strategic Services department, the Human Resources department, the Information and Communication Technologies department and the Financial Services department.

The purpose of the interviews was to supplement the literature review and consequently make the research more reliable. The interviews conducted were aimed at acquiring the necessary qualitative data, which primarily focused on the degree of awareness, comprehension and general acuity about knowledge management; at determining whether the organisational structure and strategy are conducive to effective knowledge management and whether the organisational culture supports knowledge management; and at establishing if the organisation's human and technological resources effectively support knowledge management.

The data obtained from the interviews will be analysed so as to identify commonalities and variations in the responses from the different interview subjects. A further breakdown of the captured data will be done to determine the organisation's position in relation to Yeh, Lai and Ho's (2006) proposal of the relationship between knowledge management enablers and organisation effectiveness.

## **6.2 AN ANALYSIS OF THE DATA GENERATED FROM THE INTERVIEWS WITH SELECTED PERSONNEL MEMBERS OF STELLENBOSCH MUNICIPALITY**

The aim of the analysis is to determine any patterns or trends based on the interview subjects' response to a series of questions centred on four key components of the organisation, namely the organisational culture, the human resources, the organisation's strategy and leadership, the information and communication technologies utilised by the organisation, and the organisational structure. Against the background of these questions, interview subjects were assessed regarding their understanding and general awareness of knowledge management.

### **6.2.1 Knowledge management awareness**

The senior managers' responses to the question regarding their awareness and comprehension of knowledge management were analysed in terms of their answers in the context of Liebowitz's (1999:6) definition of knowledge management as "the formalization of and access to experience, knowledge, and expertise that create new capabilities, enable superior performance, encourage innovation, and enhance customer value".

In response to this question, only the strategic services and the human resources interview subjects could most accurately define their conception of knowledge management and they were the only ones who displayed an understanding of what knowledge management comprises. The managers in the Information Technology department were not familiar with knowledge management and were prey to the common misconception that knowledge management is synonymous with information management, which is but one of the many facets of knowledge management. The senior manager in the financial services department was also not familiar with the concept of knowledge management and thought it to be the mere dissemination of information.

Based on these responses, one can safely assume that the concept of knowledge management is still an indistinct and novel idea among senior personnel members of Stellenbosch Municipality and that a greater awareness of its importance and subsequent benefits needs to be instilled among senior managers.

### 6.2.2 Analysis of knowledge management enablers

As previously mentioned, interviews were centred on four organisational elements, which Yeh, Lai and Ho (2006) identified as knowledge management enablers in an organisation. According to Yeh, Lai and Ho (2006:794) these enablers are the means for an organisation to expand its knowledge base, guard its organisational knowledge and encourage a culture of knowledge generation and sharing among organisational members. Therefore, if these crucial enablers are present and well-founded in an organisation, the implementation of a knowledge management effort will be easier and the organisation will consequently be able to utilise its resources more effectively and efficiently (Yeh, Lai and Ho: 2006:794). Additionally, the organisational structure was also considered in terms of its role in enabling knowledge management.

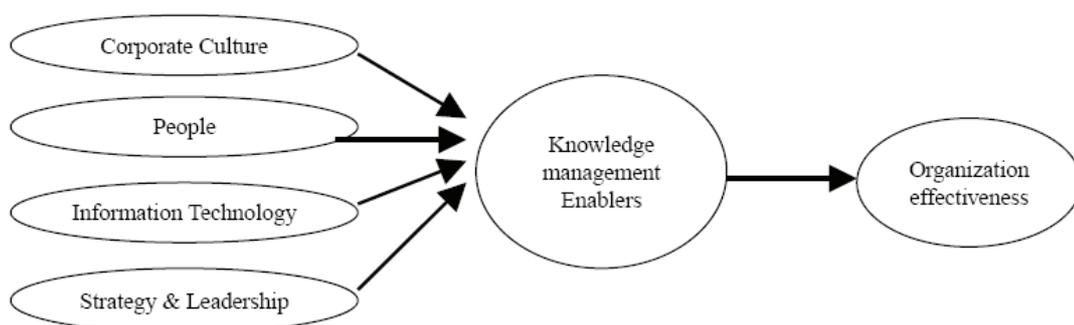


Fig 6.1 The relationship between knowledge management enablers and organisational effectiveness (Yeh, Lai and Ho, 2006:800)

### 6.2.2.1 Organisational Culture

According to Yeh, Lai and Ho (2006:797) organisational culture refers to the mix of the values, beliefs, behavioural norms and symbols inherent to an organisation, and the success of a knowledge management effort is dependent on the culture, management and collaboration between various levels in the organisation.

In the context of knowledge management, the culture of an organisation goes beyond defining the value of knowledge and the benefits it holds for the organisation; it also impacts on the employees' level of work and willingness to share (Yeh, Lai, Ho, 2006:798). From the interviews conducted, it appears that the current organisational culture shows potential for developing into a thriving culture that can sustain the implementation and functioning of knowledge management efforts. In observing the culture present in each of the departments assessed, there is a common trend that emerges in that there is a willingness to share information and a proclivity toward the implementation of knowledge management efforts.

The department that has made the most significant strides in this regard is the Strategic Services department. This department has actively identified the need for knowledge management. The managers in this department are constantly trying to encourage the practice among personnel members and to sell the concept to other departments. The Strategic Services department has identified knowledge management as one of its key performance areas (KPA's). Although the senior managers in the Strategic Services department has acknowledged the importance of knowledge management, and knowledge sharing is widespread in the department, they still face the challenge of fully implementing knowledge management as part of their operational functions. The culture of information and knowledge sharing is reasonably established in the department, but a culture persists with regard to a lack of enthusiasm to learn how to utilise technologies and information. As a consequence, what is required is the means to clarify to staff members what

benefits knowledge sharing and management hold and to encourage a change in their approach to dealing with information and knowledge.

As in the Strategic Services department, a culture of knowledge sharing is present and thriving in the Information and Communications Technologies department, the Human Resources department and the Financial Services department, but only within the boundaries of each department. Although there is a certain degree of communication and exchange of information between the departments, the common opinion is that all the departments essentially operate in functional silos.

Despite the apparent culture of sharing within the confines of specific departments, the overall organisational culture is still one of hesitation in terms of sharing across departments. This can largely be attributed to a general lack of understanding of knowledge management and related concepts, as well as a lack of trust. As described in Chapter 3, trust, which forms part of culture, is the cornerstone of successful collaboration efforts and a lack of trust causes an unwillingness to share.

#### 6.2.2.2 Human Resources

An organisation's workforce is the most important element in its pursuit of becoming a knowledge organisation. Knowledge persists because of people and an organisation cannot fully capitalise on the benefits of knowledge management unless its workforce is willing and competent enough to effectively manage its knowledge resources. Yeh, Lai and Ho (2006:798) argue that organisations should regard their employees as their chief knowledge source and should seek to combine knowledge management in their human resources management policies so as to encourage employees to willingly create and share knowledge.

As a local government organisation, Stellenbosch Municipality subscribes to a number of regulations and policies in terms of its human resources practices. This includes adherence to stipulated recruitment and selection procedures

and adequate training and skills development initiatives. In Chapter 3, the importance of employee placements or posting, training and staff turnover were identified as key criteria to consider with regard to the value of employees' knowledge and skills in the organisation. Since the municipality is a local government organisation, all employee appointments are done in accordance with a set of predefined requirements regarding skills and competencies, however one must bear in mind that the municipality functions in a political milieu which could also influence employee placements.

It can be deduced from the interviews that the municipality's human resources function is functioning effectively and that employees are geared toward embracing knowledge management initiatives. Employee capacities are developed via training and development programmes administered by the Skills Development department within the Human Resources department. Furthermore, it appears that continuous efforts are made to ensure that employee placements are aligned with employee competencies, skills and qualifications and that these are well matched in terms of the technical requirements and job descriptions.

The incidence of high staff turnover is also problematic in terms of knowledge management, in that fundamental organisational knowledge may be lost when employees retire or are promoted. It is therefore critical that organisations have the necessary contingency plans and strategies in view of the loss of organisational knowledge (Syed-Ikhsan and Rowland, 2004b:104). As derived from the interviews, the municipality has a low employee turnover rate, which is conducive to knowledge management as it encourages learning and enables the retention of tacit knowledge and the transfer of knowledge. However, notwithstanding the importance of developing and recruiting personnel internally, the need always exists to recruit external personnel who bring new skills and ideas to the organisation.

### 6.2.2.3 Information Technologies

Yeh, Lai and Ho (2006: 800) state that information technologies are vital tools for knowledge management, as they rapidly facilitate the transmission of knowledge among employees. Information technologies function to support a wide range of an organisation's knowledge management activities, including enabling fast search, facilitating access to and retrieval of information as well as supporting cooperation and communication between employees (Yeh, Lai and Ho, 2006:799).

Stellenbosch Municipality has various contemporary information technology systems in place. However, the municipality utilises various systems in various departments, thus there is no single system spanning the entire municipality. As these systems are not integrated, information sharing is hampered and accessibility to information sources is limited.

The municipality has a strong information technology platform and support network. The organisation also runs a number of information and content management systems in various departments. These include SAMRAS, which is a financial system, Collaborator, which is a document management system, and ValueProp, which is used for property valuations and related information. The municipality also runs a Geographic Information System (GIS) (Fourie, 2007b).

In addition, the organisation runs a database known as the Strategic Management System (SMS). This database is used to capture all information and data related to the municipality's budget and integrated development plan (IDP). An e-library has also been established, where personnel members have access to a number of documents including relevant policies, legislation (Fourie, 2007b).

The municipality also runs a useful website, from which GIS information, the e-library and other administrative information is available. This includes notices, numbers, job vacancies and links to council and staff members.

On the whole, Stellenbosch Municipality possesses an adequate information technology infrastructure to facilitate any knowledge management efforts. However, there is room for improvement and the need exists to implement an organisation-wide information system, spanning all nine directorates. This would allow for easy access to and retrieval of information and knowledge in various parts of the organisation.

#### 6.2.2.4 Strategy and Leadership

Yeh, Lai and Ho (2006: 795) maintain that knowledge management cannot prosper without a strategy and they assert that organisational members must show a readiness to plan and contribute to it. Yeh, Lai and Ho (2006:795) also highlight the link between an organisation's overall strategy and its knowledge management strategy. As a local government organisation, Stellenbosch Municipality's Integrated Development Plan (IDP) may be considered as the organisation's strategy. It is a strategic plan that displays the organisation's vision and mission and serves as a road map to show where the organisation is and where it is headed.

From the interviews conducted and other supporting documentation it has become evident that Stellenbosch Municipality does not have a formalised knowledge management strategy in place as yet and thus far the only specific link in this regard is the IDP manager. The IDP manager has pioneered a number of knowledge management-related activities within the municipality, which includes the creation of the e-library, the municipal website and the Strategic Management System. The strategic services department, within which the IDP manager operates, is so far the only department that has created a position for a knowledge management officer within their departmental microstructure. The IDP manager is also in the process of campaigning for the establishment of a knowledge management unit within the municipality's corporate services directorate (Fourie, 2007b).

Following strategy is the importance of leadership and the role of leaders in the success of a knowledge management initiative. The implementation of a knowledge management effort requires adequate support and dedication from top management as this influences how resources and time are allocated for executing the knowledge management plan (Yeh, Lai and Ho, 2006:797).

From the interviews with the senior personnel in the four departments it was clear that the greatest challenge to knowledge management is the acceptance of the concept by the organisation's leadership, namely council members and senior managers. Buy-in by the organisation's leadership was mentioned in all the interviews as the biggest constraint to knowledge management, largely due to the lack of knowledge concerning knowledge management. Unless the organisation's leadership are committed to and support knowledge management efforts, any successful attempt at knowledge management will be futile.

#### 6.2.2.5 Organisational Structure

Organisational structure refers to the way employees and posts are structured to facilitate organisational work processes. Although Yeh, Lai and Ho (2006) do not specifically identify organisational structure as an enabler of knowledge management in an organisation, a number of authors, including Nonaka (1994) and Skyrme (1999), identify organisational structure as a key enabler of an organisation's pursuit of knowledge management initiatives, as illustrated in Chapter 3.

According to Skyrme (1999:185), the organisational structure must promote communication across and within organisational boundaries and strengthen interdependence of teams and networks. It is therefore necessary that when an organisation plans a knowledge management strategy, it realigns its structure to aid the generation and flow of knowledge throughout the organisation.

Stellenbosch Municipality comprises nine directorates, each housing a number of departments. Each directorate has a microstructure mapping various departments and officials within the directorate. The municipality has a top-down, hierarchical organisational structure, which means that there is a definite chain of command and authority and responsibility is clearly defined. However, this type of structure is not the most conducive to knowledge management efforts, in that it is characterised by a bureaucratic nature and thus it is not very responsive to changes. Furthermore, it is also a deterrent to horizontal communication flows. As pointed out in Chapter 3, Skyrme (1999:32) claims that the network structure is most suitable to facilitate knowledge management. The network structure consists of virtual teams and organisations that permit the organisation to generate greater value via a variety of unique skill combinations that may be flexibly pooled when required (Skyrme, 1999:33). The networked organisation is thus more adaptable and allows for a more rapid response to changes.

### **6.3 CONCLUSION**

In conclusion, it is safe to say that Stellenbosch Municipality has the potential to implement a successful knowledge management initiative. Apart from the need for some improvements, the human resources and the information technologies available are all to some extent conducive to knowledge management.

However, the greatest challenge facing the municipality in terms of becoming a knowledge organisation and achieving organisational effectiveness is attaining leadership support and establishing a culture of sharing across the municipality. Once top management supports the concept and the organisational culture acknowledges the importance of knowledge management, then only can Stellenbosch Municipality plan and strategise in terms of its knowledge management initiative.

## **CHAPTER 7**

### **CONCLUSION AND RECOMMENDATIONS**

#### **7.1 INTRODUCTION**

Knowledge management has gained significant prominence in terms of adding value to business processes and it directly influences how effectively an organisation conducts its operational functions. Within the private sector, these benefits of knowledge management are well-founded and the same holds true for public sector organisations. By engaging in knowledge management practices, public sector organisations will better be able to act in response to citizens' needs and subsequently offer them enhanced delivery of services. This is therefore more relevant to local government organisations, which are the primary vehicles of service delivery. Knowledge management allows for improved decision making, collaboration efforts, streamlined organisational processes and less repetition, which lowers operational costs and allows for better service delivery.

Central to this study was the need to demonstrate how various organisational components could be developed to enable knowledge management and subsequently to illustrate how organisational effectiveness may be achieved. By identifying the enablers and restructuring them, the organisation's knowledge resources may be developed, shared and protected. In initiating knowledge management in an organisation, a positive organisational culture geared toward sharing, an organisational strategy conducive to knowledge management, strong leadership support, an appropriate structure and the assimilation of employee knowledge is vital in achieving success.

## 7.2 RECOMMENDATIONS

Stellenbosch Municipality was used as a case study to evaluate how conducive various organisational enablers, namely culture, strategy and leadership, human resources, information technology and structure are to knowledge management. Stellenbosch Municipality possesses all the building blocks to become a knowledge-based organisation. The following recommendations can assist Stellenbosch Municipality in its quest to becoming a knowledge-based organisation and ultimately achieve organisation effectiveness.

The first recommendation is to devise a knowledge management strategy.

All the knowledge management enablers are present at the municipality, but what is required is to identify the key aspects of these enablers that need to be developed to make them more beneficial to knowledge management efforts. When this is achieved, a knowledge management strategy must be devised to lead the way. The knowledge management strategy should be tactically aligned with the organisation's overall strategy, in other words the municipality's IDP document. The knowledge management strategy should be a plan to highlight the organisation's goals in terms of knowledge management. The strategy must take into account the organisation's resources and the organisation's needs must be identified. The strategy should also contain an outline of how to attend to these needs and provide suitable solutions in this regard.

To reiterate what was said in Chapter 3, there are certain fundamental factors that must be taken into account to ensure that an organisation's knowledge management strategy is effective. According to Rylatt (2003:3) these factors are:

- Know your business and effectively place your knowledge.
- Create an environment that encourages people to voice their ideas.

- Eliminate harassment, information hoarding and spitefulness among employees.
- Promote collective intelligence.
- Highlight the importance of sharing.

A good knowledge management strategy requires enthusiasm and continuing commitment from all organisational members. In particular, both the leadership and the strategy must be flexible and adaptable to changes in the organisation's milieu.

The second recommendation is to build an organisational memory.

An organisational memory is a knowledge repository. Building an organisational memory involves pooling and streamlining the entire organisation's reports and documents and drawing further information from these reports, such as lessons learned and best practices. These documents should be made available electronically and should be easily accessible from a single point of access (Lehaney, 2004:238). To establish a knowledge repository successfully it is essential to learn how to locate knowledge and strategically place it in the organisation to be available when it is needed.

The third recommendation is to reward employees and create incentives for contributions to knowledge generation, sharing and management.

It is important to create an environment and culture to facilitate knowledge management and to establish communities of practice. This type of culture must be driven by dynamic leadership and ultimately produce what is known as "knowledge workers". Since a culture of sharing is crucial to an effective knowledge management strategy the municipality should look into devising an incentive structure for employees' knowledge management efforts. According to Yeh, Lai and Ho (2006:798) employees are an organisation's most valuable source of knowledge and it has been found that incentive programmes contribute significantly to their role in knowledge management activities. The

potential rewards associated with knowledge management activities serve to motivate employees to participate actively in knowledge generation and sharing.

Furthermore, communities of practice should be encouraged and this aspect should be linked to skills development and training initiatives. As defined in Chapter 2, communities of practice are groupings of individuals who interact informally but share a common practice. This means that the municipality should encourage the transfer of tacit knowledge and skills among staff members and cultivate an environment that is conducive to sharing so as to encourage innovation and fuel the generation of new knowledge. According to Brown and Duguid (1991:40-57) communities of practice are central to organisational learning since they foster innovation within the organisation.

The fourth recommendation is to actively implement a knowledge management division within the organisation.

It is important to create an independent department or a position housing a chief knowledge officer to oversee, manage and drive the organisation's knowledge management activities. The knowledge management division should not only be responsible for the technological aspects of knowledge management and for managing the organisation's knowledge resources, but it should also constantly strive to take advantage of opportunities for innovation and establishing communities of practice both within and with parties outside the municipality's immediate environment. A separate knowledge management division will result in the municipality's ability to deliver better services based on better utilisation and dissemination of knowledge.

The knowledge management division should also be responsible for devising a knowledge management governance policy that is aligned with and mutually supportive of the knowledge management strategy. According to Zyngier, Burstein and McKay (2004:892) governance refers to a means of regulation by utilising a framework to guarantee the delivery of the possible advantages associated with a project or service. A knowledge management governance

policy thus serves not only as the framework for the scrutiny and management of knowledge management processes, but also as a means to gauge the effectiveness of the knowledge management strategy.

### **7.3 CONCLUSION**

Knowledge management has become a vital part of modern business management and, equally so, of modern public sector management. Knowledge management offers local government organisations a vast array of benefits, including enhanced service delivery, productivity, decision making and efficiency.

However, before a knowledge management initiative is implemented it is essential to ensure that certain enablers are present and adequately developed within an organisation. These enablers that include the organisation's culture, human resources, strategy and leadership, information technologies, and organisational structures are not exclusive but interdependent. Thus, for an organisation to implement a successful knowledge management initiative and attain organisational efficiency, each of these enablers must be adequately developed and supportive of the others.

By implementing knowledge management practices, Stellenbosch Municipality as well as other South African local governments will be able to reap significant benefits. The success of the knowledge management initiatives will depend on a suitable mix of relevant knowledge management enablers, a calculated strategy, top management support and commitment, educating employees about the benefits of knowledge management, as well as planning, strategising and efficiently utilising resources to facilitate knowledge management.

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## ANNEXURE

### Interview questions

The investigation will cover 4 organisational elements and questions will be centred on these. Additionally, a few general questions regarding knowledge management will also be asked.

#### **Culture and strategy**

1. The ability to transfer knowledge between departments has been found to contribute to organisational performance. How would you describe your department in terms of the human capacity, the infrastructure and the willingness to share knowledge with other departments?
2. Are there any mechanisms in place to ensure that the knowledge is effectively captured and disseminated within the organisation?
3. How much of a priority is ensuring that knowledge that is generated is accurate, reliable and delivered in a timely fashion (gets to the right person in the right format at the right time)?
4. In your opinion, how does your department's current knowledge management strategy, if any, impact on decision making within the organisation as a whole?
5. Being a public sector organisation, do you feel that political directives deter knowledge sharing efforts within the organisation? Why and How?
6. Do you think that the organisation's internal policies are an impediment to effective knowledge sharing? Why?
7. As a senior official, what is your perception of employees' willingness to freely transmit and share knowledge that could be of value to the organisation, especially tacit knowledge such as their experiences and scarce skills with other employees?

8. Considering the organisations mission and strategy, how important do you think knowledge management is in this regard?
  
9. As a public sector organisation, in developing policies and programmes, various stakeholders must be considered. A lot of information and also knowledge is also generated from these interactions. How does the organisation ensure that this knowledge is adequately captured and utilised?

### **Structure**

1. Organisational structure has a significant influence on how knowledge within an organisation is managed as it impacts on communication flows between different organisational units.
  - How would you describe the organisational structure at large? (Hierarchical, top down, vertical vs horizontal?)
  - Do you think that the structure is conducive to effective knowledge management? Why/why not? (Reporting between certain divisions only, time lags?)
  - Within your department, how would you describe the structure and the subsequent impact on communication flows?

### **Human resources**

1. Employees play a significant, if not the most important role in terms of managing organisational knowledge. Within your department, how well do you think employees have been placed in their positions in relation to their skills and qualifications?
  
2. Do you think that this has had an impact on the department's knowledge base and also on individual as well as departmental performance?

3. High employee turnover can have a negative impact on knowledge creation and transfer as employees bring with them a number of skills and experience, how would you rate employee turnover within your department? What are the consequences of this for KM?
4. As a mechanism to facilitate knowledge transfer among employees, do employees receive in-house training from more experienced employees?
5. Are there mechanisms in place to capture experience and knowledge of employees when they leave?

### **ICT**

1. What technologies are in place to facilitate effective knowledge management?
2. What is the capacity to utilise the technology?
3. On a personal level, do you feel that adequate use is made of the technologies?
4. Is sufficient training provided to employees to utilise these technologies?
5. At management level, is decision support or expert systems used to transform tacit knowledge into explicit knowledge?

### **General**

1. As a senior manager, how would you describe your awareness and understanding of knowledge management?
2. Has the organisation identified the need for knowledge management as opposed to just information management (which involves mainly ICTs for administrative purposes)?

3. Who or what are the main links to the organisation's knowledge management strategy (the people, financial resources, other resources)?
4. Are there frustrations in terms of gaining access to information?
5. Is there a willingness to freely transmit and share information among employees? In dealing with other departments and external parties, is necessary information and knowledge that could prove to be valuable easily disclosed and disseminated?
6. Has the organisation considered the idea of knowledge leadership which involves an individual or department taking charge of the origination's knowledge?