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A framework to support intra-organisational knowledge sharing in HIV/AIDS NGOs in South Africa

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A Framework to Support Intra-Organisational Knowledge Sharing in HIV/AIDS NGOs in South Africa

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2014

Declaration

I declare that this project is the result of my own work and all the written work and survey are my own, except where stated and referenced otherwise. This thesis has not been accepted or submitted for any comparable award elsewhere.

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ABSTRACT

This research captures a detailed exposition of an investigation into knowledge sharing in HIV/AIDS non-government organisations in South Africa. HIV/AIDS is a global challenge and one of the most severe problems facing our world today. South Africa is home to the largest population of people living with HIV/AIDS in the world. Knowledge management, and more specifically knowledge sharing, has been identified as a key area of focus that could be deployed to solve this problem. Despite the large number of NGOs that address HIV/AIDS in South Africa, very little research has focused on understanding this group of organisations. As such, this qualitative research contributed to the literature by examining the context in which South African NGOs work and develop an argument about the factors that influences knowledge sharing in HIV/AIDS NGOs in South Africa.

A literature review provides an overview of the main contexts in which knowledge sharing has arisen. The literature shows that despite its importance for HIV/AIDS NGOs in South Africa, there is no framework which addresses intra-organisational knowledge in this context. It is an area that has received very little research attention, yet is of increasing importance in the light of the HIV/AIDS crisis in South Africa. This motivated the researcher to formalise, refine and validate a framework to address this issue.

The research has resulted in a number of contributions to knowledge and benefits for the NGO involved. A key contribution is the development of a knowledge sharing framework that has been evaluated by HIV/AIDS NGO practitioners and internationally recognised knowledge management experts that can be used to support intra-organisational knowledge sharing in HIV/AIDS NGOs in South Africa. This framework consists of the identification of knowledge sharing component drivers required for effective knowledge sharing with the HIV/AIDS NGO and a method for implementation based on a knowledge sharing process. The research has also identified areas where there is a significant scope for further research and investigation.

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LIST OF ABBREVIATIONS

AFSA	The AIDS Foundation of South Africa
AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral Treatment
CBO	Community based organisations
HI	Healthcare Institutions
HIV	Human Immunodeficiency Virus
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome
HKM	Healthcare Knowledge Management
ICT	Information Communications Technologies
IT	Information Technology
KM	Knowledge Management
KZN	KwaZulu-Natal
M&E	Monitoring and Evaluation
NGO	Non-government organisation
NHS	National Health Service
NSP	National Strategic Plan
PEPFAR	President's Emergency Plan for AIDS Relief
PLWHA	People living with HIV/AIDS
PMTCT	Prevention of Mother to Child Transmission
RSA	Republic of South Africa
SANAC	South African National AIDS Council
STI	Sexually Transmitted Disease
TB	Tuberculosis
WHO	World Health Organisation

PUBLICATIONS

Sassman, R., Lehaney, B. and Marshall, I. (2011) 'Issues in Evaluating Knowledge-based HIV/AIDS programmes: Perspectives from Nigeria and South Africa.' In *Proceedings of the DESE Conference*.' Held 8-10 December 2011 in Dubai, United Arabic Emirates.

Sassman, R., Lehaney, B., Bali, R.K., Naguib, R.N.G. and Marshall, I.M. (2010) 'The Development of a Framework to Evaluate the Management of HIV/AIDS Programmes in Rural and Urban South Africa' In Gibbons, M.C., Bali, R.K. and Wickramasinghe, N. (Eds) *Perspectives of Knowledge Management in Urban Health*, Springer:USA.

Sassman, R., Lehaney, B. and Marshall, I. (2008) 'A Knowledge Management Framework for Assisting Organisations to Evaluate their Own (Non-clinical) Approaches to the Dissemination of Knowledge about HIV/AIDS Intervention Programmes in South Africa.' In *Proceedings of the PICMET Conference,* 'Technology Management for a Sustainable Economy.' Held 27 – 31 July 2008 in Cape Town, South Africa.

CHAPTER 1: INTRODUCTION

Knowledge sharing in organisations is not a new topic. There are ample documentation on the significance of knowledge sharing practices for an organisation's competitiveness and market performance. Very little however, has been documented in the area of knowledge sharing in healthcare settings in developing countries, especially knowledge sharing in non-government organisations (NGOs) in South Africa.

This research has been undertaken to understand and identify the problems to knowledge sharing in HIV/AIDS NGOs in South Africa and to develop a knowledge sharing infrastructure to support the sharing of knowledge for addressing these problems. This chapter introduces the context of the research, the problems associated with the sharing of knowledge in HIV/AIDS NGOs in South Africa and the solution proposed.

1.1 An introduction to the research

This research captures a detailed exposition of an investigation into knowledge sharing in HIV/AIDS non-government organisations in South Africa. This research was undertaken to identify and understand the problems associated with knowledge sharing in these organisations. It is an area that has received very little research attention, yet is of increasing importance in the light of the HIV/AIDS crisis in South Africa.

Successful knowledge sharing in HIV/AIDS NGOs in South Africa has been hindered by a

number of issues that include the following:

- The political and social environment in which they operate, including the problems associated with the apartheid era
- Communication within the HIV/AIDS NGO
- Relationships within the team as well as external relationships with donors, board of governors and the community in which they operate
- Financial constraints.

The proposed conceptual framework attempts to support these issues within the HIV/AIDS NGO by identifying which components and processes need to be in place for effective knowledge sharing within the NGO. The framework was exposed to critique from senior management within the South African HIV/AIDS NGO community as well as a team of internationally recognised experts in the field of knowledge management. The research has also identified areas where there is substantial opportunity for further research and investigation.

This chapter provides the background and motivation to this thesis. It describes the research problem and introduces the aim, objectives and context in which the investigation was undertaken. It provides a rationale for the decision to develop this conceptual framework. The chapter concludes by providing a summary of the proposed approach to address the problem of knowledge sharing in HIV/AIDS NGOs in South Africa.

1.2   Research context

1.2.1   HIV/AIDS NGOs in South Africa

Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) is a universal challenge and one of the most severe problems facing the world today (Barnett and Whiteside, 2006). There is currently no cure for AIDS. Current medical treatments

though can slow down the rate at which HIV weakens the immune system (Agbola et al., 2004; Barnett and Whiteside, 2006). It is estimated that nearly 40 million people worldwide are living with HIV/AIDS today, and just 12% of those who urgently need treatment receive it (UNAIDS, 2013).

South Africa is one of the countries hardest hit by the HIV/AIDS epidemic (UNAIDS, 2006; UNAIDS, 2009; UNAIDS, 2013) and it is home to the largest population of people living with HIV in the world (Gillespie et al., 2007). South Africa currently has 5.7 million people with HIV and more than 350 000 South Africans have died of AIDS-related illnesses (UNAIDS, 2013). An estimated 280 000 children (aged under 15 years) have HIV/AIDS and the estimated HIV prevalence of adults (aged 15 – 49 years) is 18.1% (UNAIDS, 2013).

According to Barnett and Whiteside (2006), the majority of people infected with the HIV virus who need the treatment, are still not receiving it. As part explanation for this, Bailey (2003) introduced the concept of the 'knowledge divide' in which a section of humanity is cut off from information and technologies that could help them. Despite the availability of technology to help control the disease, it has not been made widely available and people locally often do not have the knowledge to use the technologies effectively. Health data tend to be scarcer in poverty-stricken areas for example. This can result in a failure to 'make the transition from information to action' (Bailey, 2003).

Non-government organisations (NGOs) play an important role in the provision of HIV prevention services and support provided to people living with AIDS (Barnett and Whiteside, 2006; Campbell, 2003). In both the West and in developing countries, the initial response to AIDS has frequently come from NGOs, since governments have avoided the association with stigmatised groups such as homosexuals, drug users and prostitutes. This tendency has also been the case in South Africa (Barnett and Whiteside, 2006; Campbell, 2003). Initially, the South African apartheid government did very little to address black poverty, leaving welfare and development work largely to private and

charitable organisations. After 1994, which marked the end of apartheid in South Africa, NGOs continued to play a vital role in areas such as community development, women empowerment, children's rights, rural development, poverty alleviation and especially HIV/AIDS (Barnett and Whiteside, 2006; Campbell, 2003).

NGOs are usually established and operated by community members and therefore have a unique understanding of the people they serve. These NGOs are normally the main providers of direct HIV prevention services to vulnerable groups (Barnett and Whiteside, 2006; Benson et al., 2001). They are usually the first to become aware of new community trends as they work and live in the community and are therefore suitably placed to respond to community needs with culturally sensitive prevention programs. They are also considerably flexible in adapting their programs to changing local conditions (Richter et al., 2006; Barnett and Whiteside, 2006). NGOs are instrumental in the delivery of HIV/AIDS prevention programs and services (Richter et al., 2006). The United Nations for example rely heavily on African NGOs to provide HIV prevention services to marginalised people in Africa.

The South African NGO sector can normally be divided into two types of NGOs, the first service driven and the second being NGOs that focus of human rights, advocacy and monitoring. Service driven NGOs fulfills the role of providing much needed social services to underprivileged communities. These NGOs engage in a number of activities including adult basic education, HIV/AIDS, capacity building, childcare, community development, early childhood development, education, entrepreneurship, health, research, rural development, and the empowerment of women and young people. Project Literacy, Refugee Aid Organisation and The AIDS Foundation of South Africa are all examples of service driven NGOs in South Africa as they all provide much needed services to underprivileged communities in South Africa. Examples of NGOs that help to empower groups of people are Treatment Action Campaigning, Section 27 and Right2Know Campaign. The Department of Social Development holds a list of registered NGOs in South Africa but this information is not readily available for the public. Organisations such

as SANGONET has attempted to develop a portal for NGOs where they can share information and publish achievements but this is still in the early stages of development and only a few NGOs use it.

The current HIV/AIDS services in South Africa comprise a very diverse group of organisations which includes non-government organisations (NGO), community based organisations (CBO), faith based organisations (FBO) and hospital-based clinics and local health departments. Each of these organisations provide a mix of different services ranging from awareness and prevention programmes, care and support to capacity building programmes for people infected and affected by HIV/AIDS. Some organisations offer an extensive range of different medical and social services, while others might just offer a single specialised service. For example, a hospital-based clinic may provide primary medical care, mental health counselling and support groups, and financial assistance for food or transportation. Another organisation may only provide meal delivery to house bound people living with AIDS. In this service delivery environment, HIV positive people often seek medical care at several organisations to obtain their much needed services. KwaZulu-Natal especially, is a rural province and people have to travel far to reach the much needed medical services.

Organisations therefore have to work collaboratively to ensure that people who need their services receive the complete range of services and do not 'fall through the cracks' in the system. Both HIV positive people and NGOs are often frustrated by the disintegration and duplication of services that has risen as a consequence of the emergence of many separate and independent HIV/AIDS related agencies and programmes in a community. As a result, co-ordination of care and development of inter-organisational relationships have become important topics in the HIV/AIDS service arena.

The United States President's Emergency Plan for AIDS Relief (PEPFAR), introduced in 2003, identified the following areas in which HIV/AIDS organisations, especially NGOs work to provide services to South Africa.

Table 1.1 PEPFAR Programme Areas (PEPFAR, 2010)

This item has been removed due to third party copyright. The unabridged version of the thesis can be viewed at the Lanchester Library, Coventry University.

Early in the research, the researcher undertook a brief analysis of HIV/AIDS NGOs in KwaZulu-Natal (KZN), the province hardest hit by the HIV/AIDS epidemic in South Africa. The researcher's findings indicated that there were approximately 152 NGOs in KZN that implement activities as identified in Table 1.1. These NGOs are listed in Appendix 1, with their contact details and PEPFAR Programme Areas.

In 2010, the researcher conducted a mini-survey amongst these HIV/AIDS NGOs in KZN. The responses indicate that these NGOs have a desire to share and disseminate knowledge but there was very little in place for the dissemination of knowledge. Some co-ordination already existed between certain HIV/AIDS NGOs, but is still lacking in other areas. Previous research carried out by the researcher also reported on factors that contributed to the management of HIV/AIDS organisations in South Africa and one of the factors that was highlighted in this research was the lack of knowledge sharing within HIV/AIDS NGOs. It was further established that processes within the HIV/AIDS NGO needed to be standardised before effective knowledge sharing could take place.

The organisation at the heart of this study is The AIDS Foundation of South Africa (AFSA). AFSA, founded in 1988 and the first registered HIV/AIDS NGO in South Africa, is based in KwaZulu Natal, the province most affected by the epidemic. AFSA works with almost 60 community based organisations annually all around South Africa, focusing on alleviating the impact of HIV and AIDS through the implementation of health and community development projects in vulnerable communities in South Africa. They work

mostly with rural, vulnerable and hard to reach communities. After providing grants to selected CBOs and NGOs for programme implementation, they then help with capacity building to strengthen the target CBOs through regular monitoring and site visits, as well as structuring and mentoring these organisations through capacity building programmes. AFSA staff regularly travels all over South Africa, working on several projects at any one time. It is therefore crucial that knowledge within AFSA is shared effectively and efficiently for the benefit of not only the staff but for the communities and people that they serve. Please refer to chapter 3.2 for further information about AFSA.

From the foregoing the following issues of HIV/AIDS in South Africa are:

- South Africa has the highest number of HIV cases in the world (14% of population infected with the HIV virus), with KZN being the area worst affected
- Certain areas/people are affected by HIV/AIDS much more than others, leading to a 'knowledge gap'
- NGOs play a vital role in the delivery of HIV/AIDS services
- There is a desire within and amongst HIV/AIDS NGOs to share knowledge
- There is a necessity to standardise processes within the HIV/AIDS NGO.

1.2.2 The concept of knowledge sharing

Knowledge has been identified as an important strategic asset to organisations (Davenport and Prusak, 2000). The desire to share, distribute, create and capture knowledge has been covered in a wealth of literature over the past few years and seen knowledge management (KM) evolve as both an established principle and important business function (Davenport and Prusak, 2000; Wiig, 2002). KM presents an important approach to the issue of competitiveness and innovation and is undertaken by many types of organisations across many sectors (Newell et al., 2009).

Knowledge sharing is a subset of KM and deals with the ways in which knowledge is shared between individuals, groups or organisations (Connelly and Kelloway, 2003). It is

defined by Helmstadter (2003) as "voluntary interactions between human actors [through] a framework of shared institutions, including law, ethical norms, behavioural regularities, customs, and so on".

The early approaches to knowledge sharing focused on the use of Information Communications Technologies (ICT) collaboration tools to promote and drive sharing behaviours. However, more recently the focus has evolved to include multiple perspectives including social, cultural and philosophical approaches to understanding knowledge sharing (Rikowski, 2007). Knowledge sharing research has mostly been explored in the context of the private sector (Lin, 2007; Mesmer-Magnus and DeChurch, 2009). Initial analysis focused on how knowledge was shared between organisations but has expanded to consider knowledge sharing both within and across organisations. However, studies of this nature, especially in the area of HIV/AIDS NGOs are still relatively few and there is a need to grow research in this area.

1.3   The research problem

1.3.1   Defining the research problem

HIV/AIDS is a global challenge and one of the most severe problems facing our world today. South Africa is home to the largest population of people living with HIV/AIDS in the world. Worldwide researchers are trying to address this problem in areas such as prevention, treatment, care and support. Researchers are also focussing on addressing the various aspects of this disease from an education, technical, social and managerial perspective. Researchers have also identified knowledge management as a key area of focus that could be deployed to solve this problem.

Many organisations are also involved in the delivery of HIV/AIDS specific services for example hospitals, clinics, private organisations, government organisations and NGOs.

NGOs especially play a very important role in the provision of services those infected and affected by this disease.

In 2008, the researcher conducted empirical research at HIV/AIDS NGOs in KwaZulu Natal, the province worst affected by this epidemic in South Africa. The results indicate that these were some of the problems that HIV/AIDS NGOs experience:

- Political and social environment in which they operate
- Communication in the NGO
- Relationship within the team
- External relationships with donors, board of governors
- Financial Constraints

This research involves the development of a knowledge sharing framework that would address the identified problems. This research also addresses the following gaps within the knowledge sharing arena which pertains to HIV/AIDS NGOs in South Africa. The first gap relates to a limited amount of research that explores knowledge sharing as a concept and practice within the HIV/AIDS NGO sector of South Africa; the second gap concerns relates to intra-organisational knowledge sharing in the HIV/AIDS NGO sector.

1.3.2 The research questions

The primary research question

In order to achieve the research objectives one main research question is formulated, which consequently is decomposed in three specific sub questions:

> ***How can knowledge sharing be improved in HIV/AIDS non-government organisations in South Africa?***

A systematic and systemic framework is required for analysing the aspects of knowledge sharing within the HIV/AIDS NGO. The researcher was aware of the complexities to the defined problem and as such defined a number of areas that should be included:

- Existing knowledge sharing practices in HIV/AIDS NGOs
- Measurement of success
- Barriers to knowledge sharing
- Factors that contributed to the enhancement of knowledge sharing in these NGOs.

This led to the development of more specific research questions which were derived from the main research question. These additional questions also needed to be answered during the research.

Additional Research Questions

Knowledge sharing should be analysed in the context of NGOs, especially HIV/AIDS NGOs in South Africa. Consequently, a systematic process is required to demonstrate the knowledge sharing cycle in the HIV/AIDS NGO. The researcher recognised that there was room for improvement in this area and therefore defined the subsequent research question:

> *RQ-1: What are the key stages for effective knowledge sharing in HIV/AIDS*
> *NGOs in South Africa?*

Furthermore, it has been established that the HIV/AIDS environment in South Africa influences how knowledge is shared within and amongst organisations, whether it is a private, government or non-government organisation. The following research question was then defined:

> *RQ-2: How does the HIV/AIDS environment impact on knowledge sharing in HIV/AIDS NGOs in South Africa? i.e. What are the components and elements and core competences which hinder or contribute to successful knowledge sharing in HIV/AIDS NGOs in South Africa?*

It is not only necessary to identify competences needed for effective knowledge sharing but it is quite crucial that the HIV/AIDS NGO understand how these competences can be measured. The following research question was defined:

> *RQ-3: What are the key indicators for each component and how can these be measured?*

By addressing these additional research questions within the body of this thesis, the researcher aims to contribute towards the understanding of the main research question and the research as a whole.

1.3.3   The research hypothesis

After the key research question was defined and the relevant background literature was scrutinised, the following hypothesis was defined:

> **By developing a framework for knowledge sharing that considers a number of factors from the various environments in which the HIV/AIDS NGO operates, knowledge sharing in HIV/AIDS NGOs can be improved.**

Figure 1.1 summarises the relationship between the research problem, hypothesis and research questions.
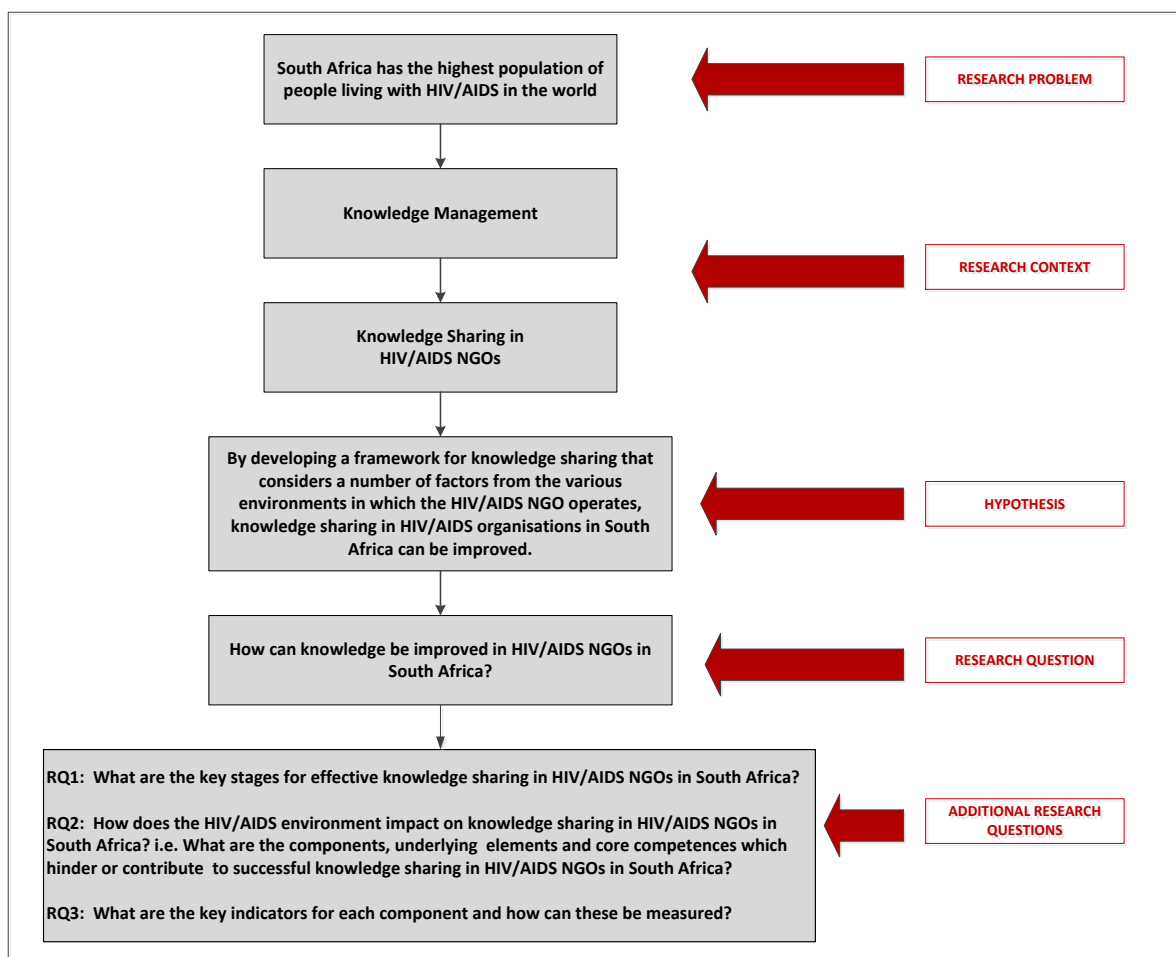
Figure 1.1 Relationship between research problem, hypothesis and research questions.

1.4 Research aims and objectives

The central focus of this research is to expand and deepen the understanding of the dynamics of knowledge sharing in HIV/AIDS NGOs in South Africa. The previous sections provide the research problem and research questions to be explored. On the basis of this, the aim of the research was defined as:

> *To develop a framework to support intra-organisational knowledge sharing in HIV/AIDS NGOs in South Africa*

In order to achieve this aim, the following objectives were established:

1. Define what this research will consider to be 'knowledge sharing'. Review the main context in which knowledge sharing has arisen and the limitations they have encountered.

    In particular, such a review will focus on the context of this research and especially the key stages and the attempts to use models and frameworks to support knowledge sharing in the specified context of knowledge sharing. This objective will attempt to answer research question 1.

2. Define the HIV/AIDS NGO environments and establish the key components which contribute to knowledge sharing within each of these environments.

    In particular, identify how the different components, underlying elements and core competences which hinder or contribute to successful knowledge sharing impacts on each of these environments. Also identify the key indicators for the identified knowledge sharing components. This objective will attempt to answer research question 2 and 3.

3. Review the key areas that emerged from the empirical research that could potentially be beneficial to development of the proposed framework.

4. Develop a conceptual framework for intra-organisational knowledge sharing in HIV/AIDS NGOs in South Africa, which addresses the key limitations encountered by other techniques.

5. Expose the conceptual framework to critique before a "final" version is produced.

6. Critically evaluate the final framework to demonstrate an original and significant contribution to knowledge.

Figure 1.2 represents the relationship between the research questions and the objectives.
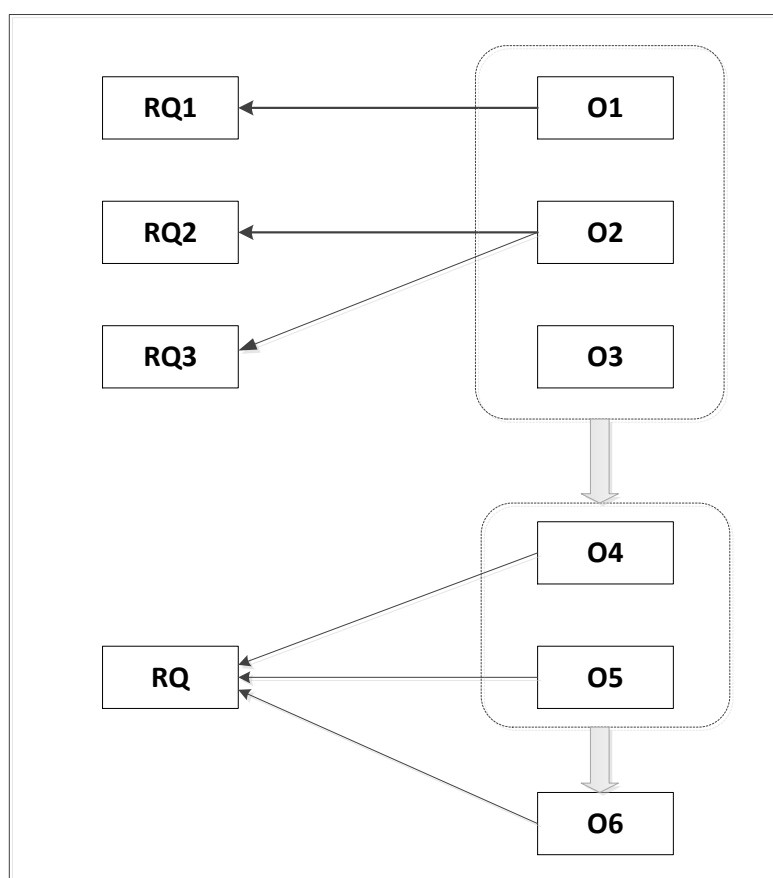
Figure 1.2 Relationship between research questions and objectives

1.5 Research contribution

This research explores not only knowledge sharing practices in NGOs in South Africa, but also considers successful knowledge sharing practices in other organisations. By exploring these practices, this research provides researchers and HIV/AIDS practitioners with a theoretical and a practical contribution, to the field of knowledge sharing.

The findings from this research will enhance the existing literature by addressing the key gaps identified in section 1.1. Firstly, the research will build on the limited research that

explores the concept of knowledge sharing in HIV/AIDS NGOs in South Africa. Secondly the research will contribute to knowledge about intra-organisational knowledge sharing in the HIV/AIDS NGO sector, and finally the research will expand current understanding of the foundations needed, to be in place, to support the process of knowledge sharing in HIV/AIDS NGOs in South Africa.

In a practical sense, the primary objective of this research is to provide a better understanding of knowledge sharing in HIV/AIDS NGOs in South Africa, so that this can be used for planning and development of approaches to assist and support intra-organisational knowledge sharing efforts.

1.6   Thesis structure and summary of contributions

This thesis is organised in three parts, as shown in Figure 1.3. The first phase includes the initial empirical research, the review of the literature and the research methodology. The proposed framework to knowledge sharing is presented in phase two. Phase three focuses on the validation of the framework to knowledge sharing. The thesis concludes with a discussion of the path followed by the research and the areas for further work. Dates are included for each phase in Figure 1.3. in order to illustrate when the researcher undertook the majority of the work associated with the phase. A more in-depth discussion of when and how the study was undertaken can be found in chapter 4. Please note that phase 3 include a revision of the outcomes of phase 1.

Figure 1.4 illustrates the relationship between the phases of the research and the chapters of the thesis, attempting to provide the reader with a brief overview of the time frame of how the study was undertaken. More details can be found in section 4.5 of this thesis.

Chapter 1
Introduction to the Research

Knowledge Sharing
The Research Problem
Aims and Objectives

PHASE 1
(Jan '07 – Aug '09)

**Towards an understanding of the challenges and limitations
of knowledge sharing in HIV/AIDS organisations in South Africa**

Refining the context of the research. Contexts in which knowledge sharing problems in HIV/AIDS have arisen. How knowledge sharing have been addressed in these areas. Challenges faced in these areas. How research into these issues have been conducted.

Chapter 2
Literature
Review

Chapter 3
Initial Empirical
Research

Chapter 4
Research
Methodology

(from theory)
Main techniques used.
Limitations and lessons
learned.

(from practice)
Established the need for
such a framework.

Qualitative Strategy.
Interpretivist approach
Main research methods
identified

PHASE 2
(Sept '09 – Dec '12)

**A Framework for
Knowledge Sharing**

The fundamentals of the new framework

Chapter 5
The Development of the Framework

Definition and practicalities

PHASE 3
(Jan '13 – Jan '14)

Validation of the Framework

Selecting, focusing, simplifying and
transforming the data evaluated.
Presentation of data to the reader.
Drawing and verification of conclusions.
Quality of the findings. Ethical issues.

Chapter 6
Evaluation of the Framework

Chapter 7
Discussion and further work.

Figure 1.3 Outline of the thesis structure
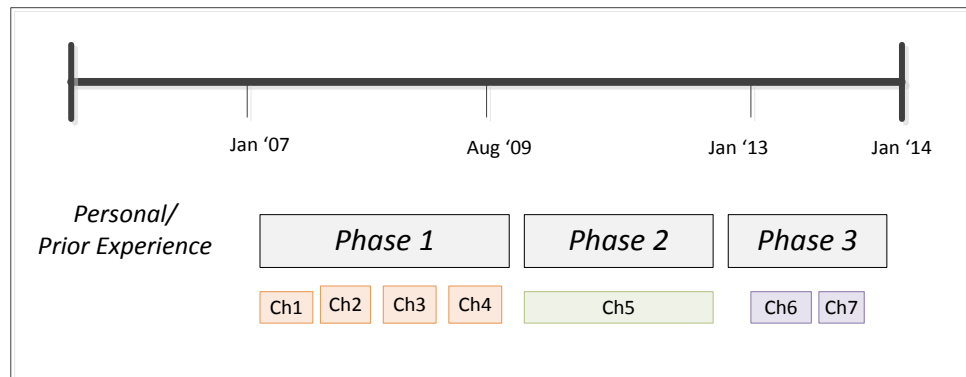
Figure 1.4 The PhD Time frame

Chapter 1 outlines the research problem and introduced the aim and objectives of the thesis as well as a broad introduction to the main issues of HIV/AIDS in South Africa. Chapter 2 provides an overview of initial empirical investigations that was carried out at the beginning of the project.   Chapter 3 analyses different techniques for knowledge sharing that have been applied in different domains, their limitations and lessons learnt. It also provides an overview of the published literature on knowledge sharing frameworks, especially in South Africa and problems NGOs encounter with the sharing of knowledge. Chapter 4 details the methodology that has been used to address the research problem. It provides justification for the path that the research took.

Phase two starts with a discussion of the new framework. Chapter 5 discusses the origins and fundamentals of the proposed framework and the justification for the inclusion of all the components of the framework.

The third phase of the thesis focuses on the validation and verification of the framework and also discusses the ethical issues associated with the conduct of this research.

Finally, chapter 7 summarises the key contributions of the research and also discusses the areas that will benefit from further research.

The chapter concludes with a thesis outline and a timeline of the PhD time frame.

CHAPTER 2: LITERATURE REVIEW

This research presents a framework that has been developed to help understand the barriers to intra-organisational knowledge sharing in HIV/AIDS non-government organisations (NGOs) in South Africa. The previous chapter offered an introduction to this research and provided the context in which the research was undertaken.

A need for a knowledge sharing framework was established. Discussion thus far would not be sufficient to provide a robust framework; therefore this chapter provides a review of the key areas of related knowledge sharing and HIV/AIDS NGOs in South Africa. This review is important in two major ways. First, by showing that there is no single existing framework that addresses knowledge sharing in HIV/AIDS NGOs in South Africa. Gaps in concepts and practice are highlighted. This helps to demonstrate that a new framework for knowledge sharing in HIV/AIDS NGOs in South Africa will contribute to knowledge and the shortfall will be clearly demonstrated in this chapter. Second, the review highlights useful elements and concepts that ought to be in the framework being developed and this is also achieved.

2.1 Focus of the literature review

Chapter 1 discusses the main research problem driving this research. Section 1.2 discussed additional problems that relate to the main research problem which gave rise to additional research questions. This led to many domains where research has been conducted. These domains provide background on the problem of knowledge sharing in HIV/AIDS NGOs in South Africa.

The purpose of this chapter is to assess the existing knowledge on the research topic, confirm the tentative belief of the need for research in this area.

An initial review indicates that NGOs are under pressure to report back to their donors on various quality issues in the NGO. They therefore need to incorporate many of the management ideas applied to within the broader business environment in order to raise their effectiveness. The literature however also shows that NGOs are different and need unique management ideas which challenged the way organisations do things. NGOs therefore need to draw from the areas of 'generic' management, public management and NGO management. It has become apparent that there are four sources of management ideas and practices relevant to NGOs:

1. "Generic" management ideas are important because NGOs are also organisations and should therefore adhere to well established management principles which are drawn from the business world. A NGO will for example, need sound accounting systems, technologies, organisational structures and systems for recruiting and training staff.

2. NGOs also need to draw from the principles of public management, especially those which are engaged in the delivery of public services. A NGO will for example need to build effective accountability mechanisms.

3. NGOs can also draw from management ideas from third sector organisations, of which NGOs are a subset of. Third sector organisations face unique challenges of structure and context and generic management ideas cannot be used to address these challenges. For example, volunteers, strategies for fund-raising and the management of governing bodies require specialised approaches which may not be provided from among generic management and public management ideas.

4. An appreciation of the NGO's operating environment, in this case the HIV/AIDS environment in South Africa and an ability to interpret that environment, are critical to the building of effective knowledge sharing systems. This includes the level of

political stability and the cultural dimensions that exist within and beyond the NGO's boundaries.

The literature review in this chapter therefore aims to:

1. Establish the key areas where the knowledge sharing problem has arisen and the limitations of existing approaches within these areas.
2. Explore areas and techniques which inform the development of a knowledge sharing framework that overcomes such limitations.
3. Investigate how success of knowledge sharing has been measured in those areas where similar problems have arisen.

In order to address these issues, this chapter will start by outlining in Section 2.2 the main contexts where the knowledge sharing problem has arisen. Because of the relevance of this problem in the field of knowledge management, section 2.3 describes knowledge sharing developments in this area. This is followed by an analysis of key issues related knowledge sharing frameworks in sections 2.4. Section 2.5 and Section 2.6 review frameworks in the NGO and HIV/AIDS fields that have informed the approach to knowledge sharing proposed by this research. Finally, section 2.6 provides a summary of the key issues that inform the findings of this research.

Although some issues for consideration of the content of a framework have been identified through empirical research, some indication of current frameworks available is necessary to establish whether there already exists a framework that addresses knowledge sharing for HIV/AIDS NGOs and to draw on good practice from previous work undertaken in this area overall.

Before continuing it is important to establish the criteria to be used to review the literature. A framework can be used to explain, "either graphically or in narrative form, the main things to be studied – the key factors, construct or variables – and the presumed

relationships among them" (Miles and Hubermanm, 2013). Where no relationship exists between concepts, the researcher shall address these as "factors". This review focuses solely on frameworks and factors presented in a paper and in particular those that may address knowledge sharing in the context of healthcare and NGOs particularly in Africa.

This review is important in two major ways, both of which form the key objectives:

1. By showing that there is no single existing framework that addresses knowledge sharing in HIV/AIDS NGOs in South Africa, gaps in concepts and practice are highlighted. This helps to demonstrate that a new framework for knowledge sharing will contribute to knowledge and the shortfall is clearly demonstrated in this section;

2. The review highlights useful elements and concepts that ought to be in the framework being developed and this is also achieved.

It was important for the researcher to understand the structure of the proposed frameworks and how they have been developed. These were established through an initial literature search to clarify the areas that knowledge sharing frameworks include and represent key significant strategic elements or concepts that would be expected to be found in most systematic approaches to knowledge sharing.

Before a review of frameworks can be conducted, it is important to establish the context in which knowledge sharing in South African HIV/AIDS NGOs has arisen. Section 2.2 introduces the reader to the background and history of HIV/AIDS and HIV/AIDS NGOs in South Africa. This will provide a clear understanding of how the problem of knowledge sharing in HIV/AIDS NGOs has arisen. Section 2.3 describes the concept of knowledge management and knowledge sharing before a review of knowledge sharing frameworks are presented in section 2.4, 2.5 and 2.6.

2.2 The research context where the knowledge sharing problem has arisen

2.2.1 *HIV/AIDS and HIV/AIDS NGOs in South Africa*

History and Incidence of HIV/AIDS in South Africa

Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome (HIV/AIDS) is recognised as a global challenge and one of the most severe problems facing the world (Barnett and Whiteside, 2006). AIDS was first recognised as a disease in the early 1980s and since then it has spread throughout the world (Agbola, 2004; Barnett and Whiteside, 2006). In 2007 it was the leading cause of death in Africa; responsible for one in five deaths and it is the fourth most common cause of death globally (UNAIDS, 2007). Sub-Saharan Africa is the region most heavily affected by HIV/AIDS, accounting for 67% of the 33 million people in the world living with HIV/AIDS today and for 72% of AIDS deaths worldwide (UNAIDS, 2013).

South Africa is one of the countries hardest hit by the HIV/AIDS epidemic (UNAIDS, 2013). According to latest Global Burden of Disease Collaborative study, published in 2013, AIDS was the "most prevalent cause of early deaths in South Africa" (Institute for Health Metrics and Evaluation, 2013). The study, which compared data collected from 1990 to the information from 2010, found that AIDS was responsible for 48% of early deaths in South Africa. In 1990 HIV-related deaths occupied only the 12th position.

South Africa is a large, relatively well-educated and wealthy country, with significant natural assets, high levels of foreign investment and a strategic geographical position. It currently has a population of about 50 million people. When apartheid ended in 1994, South Africa had a positive future. South Africa was ready to establish herself as a leader in Africa and beyond, particularly in conflict resolution and the overcoming of historic divisions. The country was however already in the grip of a HIV/AIDS epidemic, with

7.6% of the population to be infected with the HIV virus. By 1998, the prevalence rate had risen to 22%.

In 2012, South Africa had approximately 5.7 million people living with HIV and more than 240,000 South Africans have died of AIDS-related illnesses (UNAIDS, 2012). In South Africa, an estimated 410,000 children (aged under 15 years) have HIV/AIDS and the estimated HIV prevalence of adults (aged 15 – 49 years) is 18.1% (UNAIDS, 2013), the highest prevalence rate in the world. The table below indicated the statistics of people infected with HIV/AIDS for the regions specified in this research.

Table 2.1 HIV/AIDS Statistics by region (adapted from UNAIDS, 2013)

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The history of South Africa had a prominent effect on the health of its people and the health policy services in South Africa today. Before 1994, political, economic and land restriction policies divided society according to race. This influenced the organisation of social life and how people accessed basic resources for health and health services. South Africa today is a multi-racial democracy, where black African majority (79.2% of the population), joins minority groups that are white (9.2%), coloured (9%) and Indian (2.6%) (Coovadia et al., 2009). After almost 20 years, South Africa is still dealing with the legacy of apartheid and the challenges of changing institutions and promoting equality in development. South Africa is considered a middle-income country based on its economy but its health outcomes are worse than those in many lower income countries (Coovadia et al., 2009). South Africa currently has both private and public healthcare systems with huge inequality between the two. The highly sophisticated private system serves a small minority of the population - those who can afford private health. The standard of healthcare at private institutions is

considered to be equivalent to that of the most industrialised nations in the world (Scholtz, 2005).

Urbanisation has emerged as an increasingly important factor in the spread of HIV/AIDS, particularly in Sub-Saharan Africa. Contributing factors for this spread are improvements in transport infrastructure, with resultant increased migration. Communicable diseases, especially HIV/AIDS, spread faster and farther as road and transport networks expand (Moreno and Warah, 2006). In Southern Africa, HIV/AIDS first established itself in urban areas then moved into the rural areas along trucking routes, spread by the risky sexual behaviour of truckers and commercial sex workers (Moreno and Warah, 2006).

In South Africa, the HIV prevalence rate in urban areas is higher than in rural areas, but the difference is marginal compared to that in other countries. In urban areas of South Africa, the average HIV prevalence rate is 19.9% compared to 15.6% in rural areas (See Figure 2.1) (Shisana, 2005). The same study also shows that infection rates are highest in South Africa's poorest communities, in informal rural and urban settlements, where statistically more African people live than white, coloureds (mixed race) or Indian.

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Figure 2.1 HIV Prevalence (%) per settlement type in South Africa

(Shisana, 2005)

Moreno (2006) defines informal settlements as 'residential areas where a group of housing units has been constructed on land to which the occupants have no legal claim and/or unplanned settlements and areas where housing is not in compliance with current planning and building regulations'. These settlements (often referred to as squatter settlements or shanty towns) are common features of developing countries and are typically the product of an urgent need for shelter by the urban poor. They are often characterised by a dense proliferation of small make-shift shelters, degradation of the local ecosystem and severe social problems.

Shisana (2005) found that adults (15 – 49 years) living in urban informal settlements had the highest HIV prevalence rate (25.8%), followed by adults living in rural informal settlements (17.3%). The same study also reported that 'Although only 8.7% of the total South African population aged 2 years and above lives in urban informal settlements, 29.1% of the total estimated number of new infections in South Africa are found in this residence genotype.' The reasons for the significantly higher HIV prevalence and incidence rates in informal settlements can be attributed to a number of risk factors that are associated with the conditions within informal settlements and socio-economic profile of the communities living in them. These include: overcrowding, poor access to medical facilities, high levels of mobility, poverty and substance abuse (Smith, 2007).

This section provides a brief introduction to South Africa and its HIV/AIDS environment. Racial and gender discrimination, the migrant labour system and demographics are just a few of the factors which formed part of South Africa's past and all have affected health and health services and the way in which knowledge is shared.

Background to HIV/AIDS NGOs in South Africa

In both the West and in developing countries the initial response to AIDS has frequently come from NGOs, since governments have avoided the association with stigmatised groups such as homosexuals, drug users and prostitutes. This tendency has also been the case in

South Africa. AIDS provision was often left largely in the hands of NGOs (Akukwe, 1998; Campbell, 2003; Campbell et al., 2007). The spread of the HIV/AIDS disease, combined with the country's political history, has led to the growth of South African HIV/AIDS-focused NGOs. The number of NGOs established in the South African health sector increased from 598 in the pre-1976 period, to 2 212 from the end of apartheid in 1994 to 2002 (Swilling and Russell, 2002). HIV/AIDS NGOs now "constitute the bulk of policy interventions and service delivery actors" (Seckinelgin, 2007).

Since the apartheid era, HIV/AIDS policy has been marked by dramatic shifts. Within this turbulent environment, HIV/AIDS NGOs operating in the country have had to adapt their goals and activities as policies changed. However, little research has been conducted on how NGOs interacted and learnt from each other or what support was needed for effective knowledge sharing in response to each administration's policy.

In South Africa especially, NGOs have been actively involved in managing the process of change and democratic transformation (Campbell, 2003). In the early 1990s, before apartheid ended and the African National Congress (ANC) was not yet in power, HIV/AIDS NGO collaborations were formed. These included the AIDS Consortium, founded in 1992, and the later AIDS Law project, both of which were founded to promote a human rights perspective on HIV/AIDS. The Networking HIV/AIDS Association of South Africa (NACOSA) had also just begun to establish a national coalition of NGOs and individuals to coordinate a response to HIV/AIDS and develop a national plan to deal with HIV/AIDS (Heywood, 2005).

When the African National Congress (ANC) came to power in 1994, it seemed to be a promising time for coordinated NGO efforts to impact government HIV/AIDS policy. HIV/AIDS-related stigma and mortality remained low and the disease had not yet reached pandemic status. Heywood (2005) commented that "there was no loud clamoring from civil society for a better response to the HIV/AIDS epidemic".

In 1999, Thabo Mbeki succeeded Nelson Mandela as president of South Africa. By this time HIV/AIDS mortality had increased dramatically. There was however no urgency from the ANC-led government to concentrate on the epidemic. The Mbeki administration stoked a debate between western and traditional medicines, in which the government argued that AZT (azidothymindine), the preferred antiretroviral drug at the time, was a toxic and ineffective drug and instead the government supported treatments such as a nutritional mix of garlic and vegetables (Deane, 2005). By 2003, HIV/AIDS NGOs had come together to litigate and advocate for new policies and the government started to change priorities in response to this collaboration. Also in 2003, the first National AIDS conference was held in South Africa and was attended by both government leaders and member of the NGO community. This conference resulted in a plan to provide free antiretroviral drugs through the public sector. "AIDS activists expelled a collective sigh of relief and welcomed the decision" (Deane, 2005: 545). Since Jacob Zuma became leader of the ruling ANC party in 2007 and president of South Africa in 2009, the government has become increasingly supportive of access to proper HIV/AIDS care and treatment.

Intervention efforts have not kept pace with the spread of HIV/AIDS and a knowledge divide has been identified as a major factor in this (Sassman et al., 2010). An initial empirical investigation in South Africa suggests that HIV/AIDS organisations are working individually to address the problems, but there is no overall coordination between them and no system to share knowledge with the organisations competing for the same funds (Sassman et al., 2010). The result of this could be wasted resources and a systematic and systemic approach may assist in achieving better results. There is a need for HIV/AIDS NGOs in South Africa to collaborate due to the following reasons: pressure from donors to collaborate, and the need to fill a gap in service or advocacy provision within a competitive funding environment.

Many South African HIV/AIDS NGOs rely heavily on external funding for survival (Wallace et al., 2007). The largest foreign donor remains the United States, through the US President's Emergency Fund for AIDS Relief (PEPFAR). While large sums of foreign aid

are a key component of South Africa's HIV/AIDS strategy, funds are targeted at a limited number of organisations (Wallace et al., 2007). They further argue that South African HIV/AIDS NGOs face these challenges because donors see South Africa as a middle-income country who should receive limited support. Yet, South Africa is also one of the most unequal economies in the world and donors are therefore providing targeted support. It is also difficult to track the actual amount of money flowing into the HIV/AIDS sector, but the method through which it is distributed is relatively clear (Wallace et al., 2007). HIV/AIDS NGOs submit applications to funding organisations for specific projects and funds are generally provided through a process of competitive tenders (Cooley and Ron, 2002).

Some HIV/AIDS NGOs also receive funding from the South African government through the HIV/AIDS and STI National Strategic Plan (NSP). Within the NSP framework, the national and provincial governments award competitive grants to HIV/AIDS NGOs.

As HIV/AIDS NGOs compete for foreign and domestic funding, the competitive and targeted nature of the funding environment means that many HIV/AIDS NGOs operate under conditions of financial instability and resource scarcity. Despite the significance of HIV/AIDS NGOs in the country, it is still unclear how and why they interact. As such, this research attempts to more fully understand the factors that influence knowledge sharing in the HIV/AIDS NGOs in South Africa through a range of complementary theoretical approaches.

HIV/AIDS NGOs especially, the ones operating in South Africa, face unique challenges which make general management theory difficult to apply. One of the earliest references to NGO management can be found in the *Public Administration Review* published in 1975, which argues that while the writings of Levitt and Etzioni in 1975 usefully identify the roles and relevance of third sector organisations (which refers to NGOs), they 'reveal little about the internal workings of third sector organisations' (McGill and Wotton, 1975: 447). The key NGO management problems which these authors identified more than 30 years

ago are those of "goal ambiguity" and "conflicting performance standards". For HIV/AIDS NGOs in South Africa, the process of setting goals becomes highly politicised by the range of external stakeholder pressures. Not only do they have to compete with similar NGOs for funds from donors (both private and government), but once money has been awarded they often have to work with their "competitors" as resources are poor and they often do not have the skills to perform their tasks.

Knowledge about HIV/AIDS is abundant, yet this knowledge is underutilised due to various operational and functional barriers to knowledge flow and knowledge use, especially at the point of care. The knowledge about HIV/AIDS is generated at a significant rate and is held by a wide range of multidisciplinary stakeholders, including HIV/AIDS practitioners, policy makers, patients, care providers, support groups, community workers, for a range of HIV/AIDS related tasks. Knowledge about HIV/AIDS not only needs to support the individual affected or infected with HIV/AIDs but also with the related care processes. The management of all this knowledge therefore, needs to deal with a variety of knowledge resources, a range of HIV/AIDS related processes that needs to change with different operational environments, the need to satisfy different stakeholders with diverse capabilities, needs and expectations, dispersion of different knowledge across different individuals, organisations and institutions and finally clinical situations that are unique and probably demand specialised manipulation of the HIV/AIDS knowledge.

HIV/AIDS NGOs in South Africa have to consider all of the above, together with the history and culture of the country and the associated problems with resulted from this and find a meaningful way to work together for the good of the patient.

NGOs usually employ two types of staff: paid and unpaid staff (often called volunteers). As in most organisations, volunteer staff joins the NGO for self-serving reasons: they often need experience, to gain new skills or the need for contacts. Many volunteers working in the HIV/AIDS field in South Africa are young adults from other countries spending a year in South Africa to experience the history and culture whilst doing something meaningful.

As a result, they are reluctant to be involved in the decision-making processes as they are unwilling to take on the responsibility that comes with it (Lewis and Opoku-Mensah, 2006). Very often this causes tensions between the volunteer staff and the paid workers. These volunteers though are often the people that work closely with the people affected and infected by HIV/AIDS and they often acquire more knowledge than the paid staff that work in the offices. Processes though are not always in place to record this knowledge. Very often problems between paid staff and volunteers create barriers to better communication and the building of trust between these two groups of staff. The historic and cultural differences between staff also create barriers to communication which contribute to knowledge gaps.

2.2.2   NGO Context in South Africa

As discussed in the previous section, NGOs play an important role in the delivery of HIV prevention services and assistance to persons living with AIDS (Benson et al., 2001; Barnett and Whiteside, 2006; Campbell, 2007). This section investigates the characteristics of NGOs.

Although NGOs are organisations and as such inherit some of the characteristics of organisations, they are also different to private organisations. (Lewis, 2006) agrees, arguing that NGOs are different to government agencies and for-profit businesses because of the following reasons:

1. They do not make a profit and are different from government agencies since their authority is not derived from *political process.*
2. NGOs, especially HIV/AIDS NGOs are different because they *focus on 'development' tasks* and *purposes*.

A useful definition of NGOs who draws on elements of the structure-operational definition is that used by Vakil (1997) who states that NGOs are "self-governing, private, not-for-

profit organisations that are geared to improving the quality of life for disadvantaged people.'' One can therefore contrast NGOs with other types of ''third sector'' groups such as trade unions, organisations concerned with arts or sport, and professional associations.

Lewis (2006) argues further as NGOs are different to business organisations different management principles should be applied. It is only recently that NGOs have started to show interest in the idea of management related techniques. They were always deemed as primarily informal and driven by people and as such many NGOs have considered it unnecessary to pay attention to their organisational aspect, especially if this has been perceived as taking attention away from their actual work (Lewis, 2001). In recent years however, this "informal" management approach has changed for several reasons:

- "NGOs increasingly recognise that the complexities of the development 'task', and the pressures of organisational growth and expansion which may follow small-scale or local success, may require more of their organisational systems and staff merely the common practice of 'muddling through'" (Korten, 1987).
- NGOs are now starting to reflect on their processes and have discovered that they need to learn from certain repeated mistakes.
- Many NGOs are externally funded by donors and many of these funding agencies are now requiring NGOs to develop organisational systems which can ensure and measure performance quality.

The work carried out by NGOs is extremely varied – from prevention services to treatment and care to research and advocacy - but can be summarised broadly in terms of three main overlapping sets of activities and roles: implementation, partnership and catalysis (Lewis, 2006). Each role is not necessarily restricted to a single organisation. A NGO might engage in all three groups of activities at the same time, or may change its emphasis from one to the other over time or as contexts and opportunities change. Korten (1987) shows in his model of NGO "generations" that an organisation starts with meeting people's

immediate needs but over time evolve into more sophisticated agendas as the needs of the people and the community change.

Barnett and Whiteside (2006) point out that in the African context; there is a need for NGOs "to strengthen their internal management procedures with reference to planning, programming, budgeting and financial control. There is even a greater need for NGO managers to concentrate on strategic issues of programme scope and external organisational relations".

Relationships with external entities

Lewis (2006) argues that NGOs are not closed entities with clear boundaries, but are part of "open systems". NGOs therefore depend on events in their environment. This also gives NGOs the potential to influence their environment. NGOs usually begin as small-scale organisations within a limited reach, but as they develop, the management of wider relationships becomes crucial. Biggs and Neame (1994) suggest that where development NGOs displays creativity and innovativeness, this is derived mainly from relationships as they participate in "formal and informal networks and coalitions involving other NGOs, government agencies and the private sector".

NGO Organisational Structure

Dichter (1999) is very critical of NGO and argues that NGOs have often spent more time on 'fancy' ideas about participatory development than on the 'nuts and bolts' of basic management – such as hiring staff, planning and budgeting and ensuring effective systems for the maintenance of their vehicles. An early empirical study of NGOs by Biddle (1984) agrees with this view. Biddle gathered data from more than 100 senior staff of international NGOs. He identified as common problems a lack of *leadership capacity* in the NGO sector, *internal communication problems* due to the geographical separation of headquarters and field offices, *weak financial and institutional planning*, problems in *governance* in relation to the functioning of boards and a frequent lack of attention to the

management of human resources. He also found out that most of these NGOs see themselves as 'different' to other organisations since they placed a high priority on being flexible and idealistic. They see private organisations as the total opposite to this, as being organised and hierarchical. Similar concerns are raised by organisational research carried out in the UK. Billis and Harris (1996) carried out research amongst public and voluntary agencies and identified the following concerns: confusion that arises over *roles* and *internal structures in the form of 'fragmented accountability'*; tensions between *organisational aims and structures; managing or 'involving' volunteers*; and issues of governance such as the *relationships between headquarters and local organisation* and between *staff and management committees*.

Many of the organisational problems the authors argue, stem from the distinctive characteristics of this type of organisation, requiring management ideas to develop and explore this research on this sector further rather than using a 'one size fits all' solution imported from the wider management field.

Leadership

Davenport and Prusak (2000) and Senge (2006) describe the need for trust and confidence throughout the organisation, necessary to foster the appropriate culture for knowledge sharing. Senge (2006) describes the notion that a shared vision "is not an idea but a force in people's hearts". This, he further argues, is only established through effective leadership in the NGO that binds people together and establishes a common sense of purpose. Accountability relates to the relationship between decision makers and those affected by decisions. Biddle (1984) agrees with this view. He gathered data from more than 100 senior staff of international development NGOs and identified a lack of leadership capacity in the NGO sector as one of the main problems, due in part to over-dominant, charismatic NGO leaders, not being transparent or accountable.

Managers that do not take the time to engage with staff will find increasing levels of demotivation, lack of leadership and poor performance. Team leaders who facilitate knowledge sharing and engender trust contribute to team effectiveness (Lee et al., 2010). The researcher differentiates between "leadership" and "management". "Leaders" are expected to provide direction and inspiration, encourage new learning, and to develop a distinctive organisational culture, while "managers" are seen to plan, implement and monitor on a more operational and administrative level. As a consequence there is a perception that leadership is about the "big picture" and promoting change while management is concerned with resolving specific issues and day-to-day challenges.

In reality though, those people in NGOs that are responsible to ensure that plans are implemented, systems are effective, and staff motivated, are both leaders and managers. This overlap of roles is particularly evident in smaller NGOs where one person often has to play both roles simultaneously. Relatively little research has been undertaken on leadership in the NGO sector, and what research there is has mainly been based on the experience of US non-profit organisations and has focused on the work of boards rather than individual leaders.

Leadership styles are very much dependent on the environment in which they are applied. They also depend on the ability of the individual's analytical skills and judgement to know what style to adopt and when to adapt their style to suit their circumstances. Hailey and James (2004) highlight this influence of culture and context on leadership styles in the African context. The conclusions of this research are supported by the findings of researchers analysing the characteristics of leadership styles of African managers generally. Mintzberg (2006) calls this their 'engaging' management style, while Jackson (2004) highlights the importance of a 'humanist' style in the African cultural context. They also argue that any understanding of the role and performance of NGO leaders must incorporate the environment in which they work. Research into NGO leaders in Kenya and Uganda for example, highlights the way in which they operate simultaneously in three different worlds – the global aid world, the urban context in which they live and work, and the rural village

setting where many of their extended family still lives (Hailey and James, 2004). This research reveals how NGO leaders have to adapt to new leadership roles, the stresses arising from pressure of work, and the demands of organisational crises – commonly around financial shortfalls, internal conflicts or tensions between the staff and the Board. Kaplan (2002) argues that the unrealistic and artificial demands placed by aid donors add to the pressure faced by local NGO leaders. Such demands have a damaging effect on the ability of many NGO leaders to develop a degree of financial sustainability. Despite these concerns most of the recent research into NGO leadership emphasises the significance of good leadership. They argue that an effective leader can transform an organisation by providing direction, inspiring staff, mobilising new resources while still maintaining a clear organisational identity, and promoting shared values.

Training

Unlike private organisations, training in NGOs is mostly a voluntary matter. Knowledge management literature generally recognises the importance of learning, training and development in organisations. Organisational and management theory also highlights the importance of training and development, but when reviewing knowledge management literature, few explicitly address this. Binny (2001) refers to training and the development of tacit knowledge through communities of interest and engendering a learning culture. Snowden (1998) recommends training audits, and Knight and Howes (2003) propose and provide analytical tools for training.

Organisational Chart

Finding 'who knows what' in an organisation has always been a time-intensive process (Offsey, 1997). The literature suggests that it is particularly important to understand cross-organisational working opportunities and as such the mapping of expertise is necessary to expose such opportunities. Hylton (2002) refers to the categorising of knowledge workers, where they are located in the organisation, what job they do and what professional and academic qualifications they have achieved.

Mission and Vision Statement

Management need to commit time and resources to develop new organisational capabilities, communications and information technology to improve the quality and flexibility of the organisation. Feedback from empirical work suggests that a lack of commitment can inhibit the organisation's ability to improve internal communication and thus also improve knowledge sharing. Drawing on theory derived from learning organisations, management must show commitment to build a shared vision and a sense of purpose to actively cultivate positive organisational commitment to knowledge sharing. Knight and Howes (2003) and Lehaney (2004) emphasise the importance of organisational commitment to a new approach such as knowledge sharing but only Lehaney (2004) recognises the importance of management commitment.

Communication

Communication is a key factor in knowledge sharing, crossing all aspects of the NGO and is relevant to all aspects of the framework. It originates from senior management throughout the NGO, affecting learning and inter and intra-organisational working practices. Communication includes all aspects like quantity, quality, formal, informal, expectations management, attitudes, tone, use of language, categorising, all within the scope of communication. Lewis (2006) discusses the importance of designing effective communication channels for NGO management while Scott Morton (1996) examines the rapid growth in communication technology and how it is changing the ways in which NGOs work. Thanks to these technologies, NGOs can now react more quickly to events and it is now easier for information to be used, especially in emergency situations. New technologies also impact on how NGOs relate with people in their external environment, making co-ordination efforts potentially more effective. Clarke and Themudo (2006:70) comment that "new technology allows smaller, more flexible network structures to react far more quickly to rapidly changing events and issues than the traditional NGOs with their unwieldy systems and structures".

McKee and Becker (2004) argue though that well-executed, strategic communication has not been used to its full potential especially in the fight against HIV/AIDS. They further argue that a great deal about strategic communication has come from other areas of social development and family planning in particular. HIV/AIDS though presents unique challenges in terms of behaviour change and requires new thinking. The challenge for HIV/AIDS NGOs is how to make knowledge and processes comfortably explicit and transparent without risking the NGO. In the proposed framework, different issues in relation to communication and structure are considered, and the intent to which the NGO can be easily facilitated and supported. The HIV/AIDS NGO need to have clear communication mechanisms which is understood by all staff, to share information including changes in procedures or regulations and other important matters across organisational units and among staff at different levels.

Many of the local HIV/AIDS NGOs in South Africa receive funding from the government and/or from organisations outside the country for example, Elton John AIDS Foundation and Bill and Melinda Gates AIDS Foundation who provide funding for HIV/AIDS related projects. These NGOs need to be accountable to their donors. The HIV/AIDS NGO need to provide in a fair and transparent way for any information relevant made available to its members, beneficiaries and donors. The proposed framework attempts to provide the support to enable the HIV/AIDS NGO to do this.

Trust

Drawing on management theory, and reviewing knowledge sharing literature, all explicitly identify management approaches that encourage motivate and empower staff. Davenport and Prusak (2000) describe the need for trust and confidence throughout the organisation, necessary to foster the appropriate culture for knowledge sharing. Trust encourages sharing knowledge between the teams (Goh, 2002; Ko, 2010; Hasnain and Jasimuddin, 2012). Mutual trust make people feel more confident and secure to open up to each other (Wang et al., 2006). On the other hand, lack of trust is a barrier for the sharing and transfer of

knowledge as it generates uncertainty and risk (Hislop, 2002) among all the actors associated with the knowledge sharing.

Trust is a complex construct, the specific elements which vary between setting and relationships. Trusting another person always places the trustor in a situation of risk by leaving them vulnerable to the actions of others (Kramer, 1999). To trust requires the trustor to believe that the other will behave in ways that, at a minimum, do not cause harm. Trust judgements are based on the combination or personal and institutional factors that lead the trustor to expect such behaviour. The concept of trust in the workplace combines personal and institutional elements in the following three dimensions; trust in the employing organisation, trust in the supervisors and trust amongst colleagues. Trust in the employing organisation is based on the style of organisational leaderships and the nature and practices of human resource management functions (Davenport and Prusak, 2000). Trust in supervisors is linked to personal behaviours; supervisors' actions may affirm or undermine trust in the employing organisation. Trust amongst colleagues, finally, is rooted in shared experiences and may be promoted through procedures that encourage and sustain teamwork.

The limited available health sector and NGO evidence in South Africa (Coovadia et al., 2009) suggest that the worker (dis)trust in the employing NGO/supervisors, rather than colleagues, is more evident in workers from the lowest income groups in South Africa. This suggests that in the NGO environment, workers for example doing administrative work are more distrustful that their more educated and therefore senior counterparts. In the South African NGO, the history of apartheid South Africa may also contribute to this distrust as the more senior staff in the NGO is still often white people and the lower administrative staff non-white. Even after 20 years after Apartheid ended, there are still levels of distract between these two groups of people. Communication is still seen as a barrier, where often lower level administrative staff more often tends to communicate in their native African language and have trouble communicating with their supervisors who often do not speak any of the native African languages.

Coovadia et al. (2009) discuss the need for trust in a NGO, necessary to foster the appropriate culture for knowledge sharing. They include issues such as value and recognition, feedback on performance, empowerment and authority, participation in decision making etc. This however is not the case for many NGOs in South Africa. Certain managers retain activities because of insecurities, inabilities to trust others, which result in poor management generally, and low morale amongst the workforce. This inability to share knowledge is a significant obstruction to progress in the NGO and is an important component to be considered in a knowledge sharing framework.

Trust does not appear to have received adequate attention in the frameworks reviewed and currently available to the practitioner. The proposed framework therefore needs to address this gap.

2.3   Knowledge sharing in the field of knowledge management

2.3.1   Knowledge Management

To define knowledge management, it is necessary to define knowledge first. The researcher has adopted the following working definition of knowledge, based on the work of Davenport and Prusak (2000, p5):

> *"Knowledge is a fluid mix of framed experiences, values, contextual information, and expert insights that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the mind of knowers. In organisations, it is often embedded not only in documents or repositories but also in organisational routine, processes, practices and norms."*

(Polanyi, 1962) argues that knowledge exists as an object and essentially exists in two forms: (1) explicit or factual knowledge, which is typically written or documented knowledge, and (2) tacit or "know how" knowledge, which typically resides in people's

heads. Tacit knowledge, also called intuitive knowledge, is often hard to communicate and is passed through socialisation, mentoring etc. It is well established that although both types of knowledge is important, tacit knowledge is more challenging to identify and thus to manage (Nonaka, 2002).

Objective knowledge whether it is tacit or explicit knowledge, is located at different levels in an organisation; at individual, group or organisational level. The objective elements of knowledge have an impact on processes where knowledge leads to greater effectiveness and efficiency (Wickramasinghe and von Lubitz, 2007).

Knowledge is also subjective, on-going and shaped by social practices of communities (Boland and Tenkasi, 1995). The subjective elements of knowledge impact innovation by supporting the generation of ideas. Both effective and efficient processes (caused by objective knowledge), as well as supporting innovation (caused by subjective knowledge) are key concerns of the management of knowledge in an organisation.

The knowledge infrastructure consists of technology components and people that together make up the knowledge sharing system, and hence the socio-technical system of an organisation (Wickramasinghe and von Lubitz, 2007). Table 2.2 provides definitions of the key concepts relating to knowledge.

Table 2.2 Key knowledge concepts (based on Bali et al., 2009)

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The information systems literature often refers to the distinction between knowledge, information and data, and more recently wisdom. Data relates to numbers, facts, words, sounds and images. Information is data that has been refined or processed. Figure 2.2. depicts the generally accepted relationship between these terms. Data is viewed as the first step in the knowledge pyramid, from which an upwards transition is made in order for data to be transformed into knowledge.

Wickramasinghe and von Lubitz (2007) include wisdom in the knowledge pyramid. Wisdom is a process by which judgement is needed about what is right and wrong. In essence, it "embodies more of an understanding of fundamental principles embodied within the knowledge that are essentially the basis for the knowledge being what it is" (Bali et al., 2009). What is particularly interesting to researchers is the transformation from data to information to knowledge and to wisdom. The literature indicates that wisdom is acknowledged as a growing area of interest but it currently falls outside the scope of interest.

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Figure 2.2 The "Traditional" View of Data – Information-Knowledge-Wisdom (Bali et al., 2009)

Although knowledge management has been widely studied by researchers, it has no universally accepted definition. Some principles however, are common in all definitions. For example, knowledge management involves people, processes, activities and technologies that enable sharing, creation and communication of knowledge. It should be noted that each definition of knowledge management is dependent on the discipline of the organisation that engages with the concept.

Lehaney et al. (2004, p3) derive the following working definition of knowledge management through theory, practice and reasoning:

> "*Knowledge Management refers to the systematic organisation, planning, scheduling, monitoring, and deployment of people, processes, technology and environment, with appropriate targets and feedback mechanisms, under the control of a public or private sector concern, and undertaken by such a concern, to facilitate explicitly and specifically the creation, retention, sharing, identification, acquisition, utilisation, and measurement of information and new ideas, in order to*

achieve strategic aims, such as improved competitiveness or improved performance, subject to financial, legal, resource, political, technical, cultural, and societal constraints."

In essence, it means systematically and routinely creating, gathering, organising, sharing, adapting and using knowledge, from both inside and outside the organisation, to help achieve organisational goals and objectives (Gupta et al., 2000; Milton, 2004). Davenport and Prusak (2000) define knowledge management as "a method that simplifies the process of sharing, distributing, creating, capturing and understanding of a company's knowledge".

The foregoing definitions refer to knowledge management within an organisation, but the challenge in South Africa is different, because the delivery of health services is decentralised and each of the nine provinces is developing their own HIV/AIDS programmes (WHO, 2011). This presents a knowledge management challenge. That is, how can managers of organisations dealing with HIV/AIDS allocate resources without accurate, timely information from the local and provincial levels? There is a need for information and data management interventions that would improve the ability to provide care to people living with HIV/AIDS, as well as the ability to manage the impact of the disease in their communities. Without this capability, providers significantly reduce their effectiveness in caring for patients, particularly in large numbers.

The World Health Organisation (WHO) also recognises that improving strategic information and knowledge of the epidemic at local and national levels is "essential to guide planning, decision-making, implementation and accountability in relation to the response of the health sector to HIV/AIDS" (WHO, 2011). Sharma et al. (2005) discuss the benefits to the healthcare arena of incorporating these tools and techniques to make healthcare delivery more effective and efficient, and thereby maximising the full potential of all healthcare knowledge assets. Bailey (2003) suggests that "effective knowledge management in health can provide "on an equitable basis the knowledge necessary for local innovation, and then produce new knowledge that is in turn fed back and shared in a

dynamic regeneration process"'. In organisations generally and in healthcare specifically, time, energy and resources are wasted because people repeat the same mistakes and develop new systems over and over again, rather than sharing what they know via reliable national networks so that they can learn from each other (Bailey, 2003).

As illustrated above, various definitions and approaches to knowledge management exist. Each definition and approach aims to solve a different problem (Lehaney et al., 2004). Each discipline approaches knowledge management with a different perception, for example, computer science focuses heavily on technology, human resources takes an individual and organisational approach emphasising learning and reward factors, and others focus on the explicit capture and registration of knowledge (Lehaney et al., 2004).

One of the areas which has not yet fully utilised the advantages and benefits of knowledge management is managing HIV/AIDS. A literature search indicates that most research in this area focuses on simulation of HIV/AIDS (eg Simwa and Pokhariyal, 2003; Xia, 2003) and the development of information systems (eg Caceres et al., 2005; Zolfo et al., 2005) but nothing focuses on knowledge sharing within HIV/AIDS organisations in South Africa.

Knowledge management processes

Knowledge Management involves processes that enable the application and development of knowledge in an organisation. Alavi and Leidner (2001) identify four processes that support organisational knowledge management:

1. The creation of knowledge from new ideas and content that requires constant interaction between the explicit and tacit dimensions of knowledge.
2. The storage and retrieval of knowledge through placing knowledge in a physical or electronic repository.
3. The transferal of knowledge between individuals, from individuals to groups, across groups and across organisations.
4. The application of knowledge.

Alavi and Leidner (2001) argue that without application, the other three KM processes would not be necessary.

Alternative views of knowledge processes are also discussed by other scholars. Davenport and Prusak (2000) acknowledge knowledge processes to encompass the generation of knowledge, the codification of knowledge, the transfer of knowledge, and the storage of knowledge. Wiig (2002) identifies four knowledge processes: (a) building knowledge; (b) holding knowledge; (c) pooling knowledge; and (d) applying knowledge.

The researcher agrees with the views of Nonaka (2002) in that the knowledge management process cannot be established simultaneously but has to be build up over time. Nonaka (2002) further suggests that knowledge management is linked to personal relationships and informal communications and processes as much as it is to formal organisational structures and technologies. Eardley and Czerwinski (2007) agree with this view, discussing the potential use of tools and techniques in support of KM in NHS healthcare. They identify key factors that can improve the effectiveness of KM in the NHS: organisational processes, organisational structure, KM processes and KM infrastructures and the relationships between them. They produce recommendations for best practice in the adoption of KM in healthcare.

The researcher will discuss how this particularly relates to knowledge sharing in the next section and more in chapter 5.

Knowledge management success factors

A literature search indicates that various authors have researched and written about the success factors for knowledge management. Studies were mainly exploratory in nature, only commenting on what large companies were doing in terms of leveraging their knowledge. One of the earliest studies of critical success factors for practising knowledge management was reported by Skyrme and Amidon (1997). They drew on an international

study of practices and experiences of leading companies in KM and suggested seven key factors. Davenport et al. (1998) conducted a similar study, exploring the practices of 31 KM projects in 24 organisations. Liebowitz (1999) followed suit and proposed 6 key elements for making KM effective. These were based on lessons taken from leading companies in the field.

Holsapple and Joshi (2000) followed a different approach. They developed a descriptive framework that characterised the factors that influence the success of KM. They characterised the various knowledge activities that occur in an organisation: obtaining knowledge (from sources outside of the organisation), selecting knowledge (from the organisation's own resources), generating knowledge (by developing or discovering it), internalising knowledge (through storage or sharing within the organisation), and externalising knowledge. They coined the term "knowledge management episodes" for these various instances of knowledge activities.

The review in this section highlight various factors that had been identified as imperative for accomplishing knowledge management. Although different terminologies were used to describe these terms, they can be represented by generic terms. Table 2.3 summarises the critical success factors for knowledge management adoption in organisations.

Table 2.3 Critical Success Factor for KM adoption in organisations (adapted from Wong and Aspinwall, 2005)

Critical Success Factors	Authors
Management leaderships and support	Davenport and Prusak (2000), Holsapple and Joshi (2000), Liebowitz (1999), Skyrme and Amidon (1997)
Culture	Davenport and Prusak (2000), Liebowitz (1999), Skyrme and Amidon (1997)
Information Technology	Davenport and Prusak (2000), Liebowitz (1999), Skyrme and Amidon (1997)
Strategy and Purpose	Davenport and Prusak (2000), Liebowitz (1999), Skyrme and Amidon (1997)
Measurement	Davenport and Prusak (2000), Holsapple and Joshi (2000)
Organisational Infrastructure	Liebowitz (1999), Davenport and Prusak (2000)
Processes and Activities	Davenport and Prusak (2000), Holsapple and Joshi (2000), Skyrme and Amidon (1997)
Motivational Aids	Davenport and Prusak (2000), Liebowitz (1999)
Resources	Holsapple and Joshi (2000)

2.3.2 *Knowledge Sharing*

Knowledge sharing is defined as "the voluntary interactions between human actors [through] a framework of shared institutions, including law, ethical norms, behavioural regularities, customs and so on… the subject matter of the interactions between the participating actors is knowledge. Such an interaction itself may be called sharing of knowledge" (Helmstadter, 2003, p11, cited in Wah et al., 2007).

Knowledge sharing deals with the ways in which knowledge may be shared between individuals, teams and/or organisations (Connelly and Kelloway, 2003). Davenport and Prusak (2000) define knowledge sharing at an individual level as "a voluntary act which leads to new experiences or understanding for the knowledge sharing recipient". Willem (2002) further explains that knowledge sharing occurs between at least two parties and is a reciprocal process that allows the reshaping and sense-making of the new knowledge in the new context. Connelly and Kelloway (2003) distinguish knowledge sharing from information sharing by arguing that knowledge sharing contains an "expectation of reciprocity", whereas information sharing is seen as "unidirectional and unrequested".

Nonaka and Takeuchi (1995) develop a "spiral" model, also known as the SECI model. They argue that there is a difference between different levels of "entities" that operate in knowledge creation. i.e. individual, group, organisational and inter-organisational level. They argue that knowledge is created and transformed "spirally" from individual level to organisational level and finally between organisations. They also argue that knowledge originates from individuals not from the organisation itself. Organisations need to ensure that tacit knowledge created at the individual level is mobilised into the organisation. As seen in Figure 2.3, a dynamic "spiral" emerges where knowledge is created and shared at the individual, group and organisational level. Nonaka and Takeuchi's "spiral model" is based on four alternative types of knowledge creation:

- from tacit knowledge to tacit knowledge i.e. *socialisation*
- from tacit knowledge to explicit knowledge i.e. *externalisation*

- from explicit knowledge to explicit knowledge i.e. *combination*

- from explicit knowledge to tacit knowledge i.e. *internalisation*

Socialisation encompasses knowledge sharing, normally through experiences that are shared. This usually occurs at the group level. The knowledge conversion process of *externalisation* assists knowledge management effectiveness at the individual level. In addition, people turn explicit knowledge into complex sets of explicit knowledge through combination that involves information processing, creating manuals and documents, databases to transmit new knowledge and create new knowledge. The knowledge conversion process of *combination* assists knowledge management effectiveness at the organisational level. *Internalisation* is described as a form of knowledge conversion that includes the use of common guidelines so that explicit knowledge can be transformed into tacit knowledge, which can be used. In internalisation people learn by doing. Knowledge conversion process of internalisation facilitates knowledge management effectiveness at the individual level.

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Figure 2.3 The SECI Model (Nonaka and Takeuchi, 1995)

Spencer (1996) builds on Nonaka and Takeuchi's work by combining explicit and tacit knowledge with individual and social knowledge. He created a matrix which highlights the

four types of organisational knowledge. Those four types together represent a combination of the organisation's knowledge. He identifies it as follows:

- individual explicit knowledge a i.e. *conscious knowledge* which can be stored and retrieved from personal records or memory.
- individual tacit knowledge i.e. *automatic knowledge* which is based on people's theoretical and practical experience and learning
- organisation's social explicit knowledge i.e. *objectified knowledge* which includes registered patents and designs or information stored on database
- social tacit knowledge i.e. *collective knowledge* represents all knowledge embedded in social and institutional practices, systems, workflows and culture.

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Figure 2.4 The Four Forms of Organisational Knowledge (Adapted from Spencer, 1996 as in Wang and Ahmed (2003))

Spencer (1996) argues that social tacit knowledge is the "most secure and strategically significant kind of organisational knowledge" while Szulanski (1996) discusses the

effectiveness of knowledge sharing in project teams across organisational boundaries. Fedor et al. (2003) discovered that knowledge dissemination was often dependant on the informal interaction between team members, and that both team leadership and organisational support had key impacts on the projects.

Bartol and Srivastava (2002) describe knowledge sharing as "individuals sharing organisationally relevant information, ideas, suggestions and expertise with each other". Luen and Al-Hawamdeh (2001) argue that the systematic sharing of knowledge is now becoming a priority for all organisations around the world. They identify four main mechanisms for individuals to share knowledge in organisations:

1. through contributions to organisational databases
2. through formal interactions within or across teams
3. through informal interactions among individuals
4. within voluntary forums such as communities of practice

The selection of the appropriate knowledge sharing mechanism should depend on the type of knowledge to be shared and frequency of the sharing process and the nature of the recipient whether at the individual, group or organisation level (Dixon, 2000).

Tang (2008) noted that at inter-organisational level, most of the literature stems from the technology transfer and the strategic management literature. Tang contends that studies from these fields perceive knowledge sharing to occur through "contractual inter-organisational relations" and do not consider that knowledge is shared through informal interaction.

The aforementioned literature defines knowledge sharing and identifies mechanism for effective knowledge sharing in organisations. It also discusses how knowledge is shared at the individual, group, organisational and inter-organisational level. The next section specifically looks at the factors which influence knowledge sharing at these different levels.

Factors which influences knowledge sharing

There is increased recognition of the role that individuals play in the knowledge sharing process in an organisation and an increasing interest in the 'people perspective' of knowledge and information in organisations (Davenport et al., 2000). McDermott (2000) recognises that the key to successful knowledge management and more specifically knowledge sharing is now being seen as being dependent on the relationships between individuals in the organisation. Empirical evidence also points to the importance of people and people-related factors as important to knowledge processes within organisations (e.g. Andrews et al., 2000).

Knowledge sharing is important because it offers a link between the individual and the organisation by moving information that exists in the individual to the organisational level, where it is transformed into economic and competitive value for the organisation (Bartol and Srivastava, 2002). Nonaka (2002) argues that "organisational knowledge needs to be managed as corporate assets and that knowledge creation and sharing should be harnessed as key organisational capabilities". Jarvenpaa and Staples (2001) voice their concern in this approach as organisational knowledge is controlled at the level of individuals. Individuals use the knowledge they have in their daily activities (Lam and Lambermont-Ford, 2008) and unless the organisation can enable the sharing of this knowledge with others, it is likely to lose this knowledge when individuals leave (Gupta et al., 2000). Even if individuals stay with the organisation, the full scope of their knowledge may not be realised and used unless there are opportunities for the individual to share that knowledge with others in the organisation (Weiss, 1999).

Knowledge Sharing Behaviours

Knowledge has become a vital factor in achieving competitive advantage and a primary force behind an organisation's success (Bock et al., 2005). Baird and Henderson (2001) and Teece (2000) argue that by developing positive knowledge sharing behaviours, productivity amongst workers will be increased. They discovered that organisations speed

up information and knowledge flow, increase efficiency and effectiveness and react to customers changing needs faster when knowledge sharing is encouraged. Barua et al. (2007) and Wagner (2006) agree with them stating that organisations that encourage knowledge sharing have been found to gain competitive advantage in the long term.

Organisational Commitment

Lok and Crawford (2005) define organisational commitment as "the relative strength of an individual's identification with, and involvement in a particular situation." Meyer and Allen (2004) provide a useful distinction between different kinds of commitment:

- *Affective commitment* – this relates to an individual's identification and involvement with the organisation, a feeling of emotional attachment to that organisation – Meyer and Allen (2004) further explain that affectionate commitment leads to a feeling of wanting to continue employment in the organisation.
- *Continuance commitment* – this is created by high costs associated with leaving the organisation and creates a feeling of needing to continue employment.
- *Normative commitment* – this is related to a feeling of obligation towards the organisation and creates a feeling that one ought to continue employment.

Meyer and Allen (2004) argue that affective commitment positively relates to an individual's willingness to do extra effort. This is the kind of commitment that can be expected to be related to willingness to donate and receive knowledge. Hall (2001) agrees and further argues that people are willing to share their knowledge if they are convinced that doing so is useful, is appreciated and that the knowledge will actually be used. Hinds and Pfeffer (2003) argue that an individual, who is committed to the organisation and has trust in both management and co-workers, is more likely to share knowledge. Jarvenpaa and Staples (2001) agree, stating that "greater commitment may engender beliefs that the organisation has rights to the information and knowledge one has created or acquired."

Various authors have specifically investigated the relationship between commitment and knowledge sharing (Hislop, 2002; Kelloway and Barling, 2000; Smith and McKeen, 2003). Smith and McKeen (2003) especially state that commitment to the organisation is an important part of a knowledge sharing culture.

Social Environment

The social environment within an organisation encourages knowledge sharing. Several theories have been identified to help explain how and why individuals share information and knowledge in an organisation. One such theory is called social exchange theory, which argues that people work together to gain desired resources through social exchange (Cropanzano and Mitchell, 2005). Another theory which explains collaborative beliefs is based on social identity theory. By demonstrating consistency with the organisation's goals, individuals revalidate their status in the organisation (Cropanzano and Mitchell, 2005). Social exchange theory can be used to explain why people share information while social identity theory explains why people share expertise. Both are of equal importance in a knowledge sharing organisation.

Organisational Structure

Li and Lin (2006) and Liebowitz (2005) argue that organisational structure influences the quality of knowledge being shared. For example, hierarchical structures in an organisation often result in information and knowledge overload due to restrictions in acquiring new information and rules which can cause delays in decision making. Relationships are often used to measure what kinds of knowledge is exchanged and between whom. Positions in an organisation usually determine who controls, enables or impedes the information flow and who has similar information needs or uses.

Individuals are also likely to hold back information from others if they perceive that sharing such information will lead to their loss of power, position of influence, or promotion (Bock et al., 2005). For organisations to compete successfully, they must understand the

processes of learning, behavioural change, and performance improvement. These processes have been shown to occur in organisations that facilitate and promote information sharing among and between their employees (Lin, 2007).

Organisational Culture

Tylor (1871) was the first to describe culture as "...that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society." This definition emphasises individuals, knowledge, groups and society as vital components of a culture. Lemken et al. (2000) describe organisational culture as "the sum of shared philosophies, assumptions, values, expectations, attitudes and norms that bind the organisation together". These cultural features of an organisation are different in each society and even within each organisation. This helps us in the context of knowledge management as many organisations at large influence the cultural factors within them rather than the society as a whole. In South Africa, with its current focus on cultural equality, this is of particular importance. Finestone and Snyman (2005) explore South African knowledge management practices in a cross section of corporate companies and found that companies are sceptical to acknowledge cultural differences because of major cultural sensitivity. They suggest that organisations create a "cooperative knowledge-sharing environment in which South Africa's diverse cultures can interact, learn from one another and innovate".

South Africa is known for its ethnic and cultural diversity. This will not only have an impact on the culture within the organisation but also on the communities that they serve. Within the NGO, cultural differences would have an impact on the way in which the workers not only interact with each other but with also how they interact with the supervisors. In certain cultures in South Africa, respect is shown towards people older than one self. This might lead to tension within the NGO if someone younger is in a managerial role and from a different ethnic background. The NGO will need to ensure that these cultural differences are addressed as part of their human resource management training.

Similarly when NGOs provide community support or training, these cultural differences between ethnic groups need to be respected.

The existing literature in knowledge management constantly highlights the close relationship between organisational culture and knowledge management (Davenport, 2000, Nonaka, 2000). Oliver and Kandadi (2006) refer to the knowledge culture as "a way of organisational life that enables and motivates people to create, share, and utilise knowledge for the benefit and the enduring success of the organisation."

Trust

Various authors have described the need for trust and confidence in an organisation, necessary to foster the appropriate culture for knowledge sharing (see Ipe, 2003; Mu et al., 2008; Wu et al., 2009). However, even with such a culture, the issue of power and politics may remain at an individual level, indicating that any organisation, without the right culture, would not be in a position to contemplate knowledge sharing.

This is relevant to knowledge sharing in two respects. In the first place it could be suggested that general wellbeing and positive attitudes in the NGO contribute to the effectiveness of knowledge sharing. If the overall disposition of the workforce is negative and 'unwell' then individuals may be less inclined to contribute to such an initiative. Secondly, the concept of formal and informal knowledge sharing could be beneficial in generating a culture of peer support and improving the overall wellbeing of the NGO and assist in the reduction of stress.

In summary, a review of management style, improved communication, systems and procedures, which could increase motivation and performance, may also contribute to the development of a culture conducive to knowledge sharing in AFSA.

Incentives and Rewards

Incentives for individuals that originate from sharing knowledge also influence the information and knowledge sharing process. Gupta and Govindarajan (2000) argue that "the probability that individuals in an organisation will route information to other individuals is positively related to the rewards that they expect to result from sharing". Hsu and Lin (2008) agree and add to this claim by discussing the role technology play in the sharing of such knowledge. They further argue that incentives and rewards are indispensable to information and knowledge sharing. Other researchers however, have argued that tangible rewards alone are not enough to motivate information and knowledge sharing among individuals. Professionals participate in information and knowledge sharing activities because of the intrinsic reward that comes from the work itself (Bartol and Srivastava, 2002) and in some cases, formal rewards may be seen as patronising by professionals who are motivated by a sense of involvement and contribution (McDermott and O'Dell, 2010). Gagné (2009) however argue against the use of incentives to share knowledge, claiming that in the long run, unless information and knowledge sharing activities assist employees in meeting their own goals, tangible rewards alone will not help sustain the system.

Bartol and Srivastava (2002) propose a relationship between different types of information and knowledge sharing and monetary rewards systems. They identify four mechanisms of knowledge sharing:

1. individual contribution to databases
2. formal interactions within and between teams
3. knowledge sharing across work units
4. knowledge sharing through informal interactions

They suggest that monetary rewards could be introduced in an organisation to promote knowledge sharing through the first three mechanisms, whereas informal knowledge sharing could be rewarded by intangible incentives.

Technology

Technology has increased the potential for information and knowledge sharing within and between organisations. Organisations nowadays are also investing in collaborative information and communication systems to encourage and facilitate the sharing of information (Hsu and Lin, 2008). However, organisations investing in this type of technology often face difficulties in encouraging their employees to use this system to share their ideas.

Jarvenpaa and Staples (2000) undertook an exploratory study in organisations and discovered the following predictors of participation in computer-mediated information sharing:

1. personal propensity to share information
2. experienced comfort with the use of technology
3. perceptions about the quality of content found in information systems
4. the degree of task interdependence experienced by each employee

A KPMG study (2000) which investigated the problems in organisations regarding participation rates in knowledge-exchange systems, discovered that people time was a big issue, they also saw little or no reward for sharing their knowledge, or that they simply thought their efforts were wasteful "re-inventions of the wheel".

Motivation

Motivation can either be intrinsic or extrinsic. Intrinsic motivation provides an individual with a sense of immediate satisfaction and "is valued for its own sake and appears to be self-sustaining" (Deci, 1976, p105 cited in Lam and Lambermount-Ford, 2008). Individuals who are intrinsically motivated are more likely to generate and transfer tacit knowledge than those who are extrinsically motivated (Osterloch and Frey, 2000, cited in Lam and Lambermount-Ford, 2008). Extrinsic motivation relates to intentional acts that are engaged in as a means to an end (Osterloch and Frey, 2000). Lam and Lambermount-

Ford (2008) argue that extrinsic motivation is more conducive to the sharing of explicit knowledge.

Leadership

Leadership is another factor that is inductive to the sharing of knowledge in an organisation. Managers that do not take the time to engage with staff will find increasing levels of demotivation, lack of leadership and poor performance. Srivastava et al. (2006) identify the need for strong leadership skills to bind people together in a sharing environment while Mullins (2007) raises social issues including leadership as part of a human oriented system. Goh (2002) recognises the importance of leadership to achieve effective knowledge transfer.

Knowledge Sharing Opportunities

Jacob and Roodt (2007) identify a range of opportunities for knowledge sharing in an organisation. Their findings are summarised in Table 2.4 which has been adapted to include opportunities identified by Ipe (2003). One of the key factors identified by Ipe (2003), but missing from Jacob and Roodt's assessment relates to knowledge sharing through technological tools.

Table 2.4 Knowledge Sharing Opportunities (adapted from Jacob and Roodt, 2007)

Knowledge Sharing Opportunities	Author
Workshops, seminars, conferences, team building exercises	Gupta et al. (2000)
Written Reports	Gupta et al. (2000)
Face-to-face interaction	Yang (2007)
Informal gatherings, social events, dialogues, collective reflections	Ipe (2003), Yang (2007)
Employee suggestions, ideas programmes	Bartol and Srivastava (2002)
Scheduled meetings within and across teams	Bartol and Srivastava (2002)
Best practice	Bartol and Srivastava (2002), McDermott and O'Dell (2001)
Performance appraisal, promotions, merit pay	Bartol and Srivastava (2002), McDermott and O'Dell (2001)
Mentoring programmes	Gupta et al. (2000), Yang (2007)

Riege (2005) identified the following knowledge sharing barriers that managers must consider:

Table 2.5 Knowledge-sharing barriers managers must consider (Adapted from Riege (2005))

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2.3.3   Summary of this section

This section provides an introduction to knowledge and the role it plays in organisations through the concept of knowledge management. Several definitions are presented; key knowledge processes and several success factors for knowledge management are discussed. This section also provides a review of factors which influences knowledge sharing in an organisation.   The literature indicates that these factors need to be in place in an organisation for effective and efficient knowledge sharing to take place.

2.4   Frameworks that have addressed knowledge sharing

Based on the review carried out of the literature on this topic and the analysis and appreciation of the domain of knowledge sharing, frameworks in this area appear to fall into the following categories:

1.   Frameworks that have focused on knowledge sharing at the organisational level

Smith and McKeen's (2003) Optimal Sharing Behaviour Model categorise factors into four distinct dimensions: (1) social (2) managerial (3) technological and (4) organisational. They argue that these four dimensions build on and interact with each other and create optimal conditions for knowledge sharing. (see Figure 2.5)

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Figure 2.5 Optimal Sharing Behaviour Model (Smith and McKeen, 2003)

They argue that, in the *social dimension*, knowledge is shared and includes factors such as trust, social interaction and motivation. These factors have been the subject of several other knowledge sharing studies (see Ipe, 2003; Mu et al., 2008; Wu et al., 2009). Smith and McKeen (2003) conclude that the social context of knowledge sharing should be a key consideration for any knowledge sharing framework. The second dimension relates to the *organisational practices and processes* that influence knowledge sharing behaviours. This dimension includes factors such as governance and accountability structure, enabling sharing through recognition and incentives; the way in which processes integrate knowledge; and where knowledge resources are spent. The third dimension pertains to the *role of managers* in leading, promoting, and influencing knowledge sharing behaviours. This dimension emphasises the important role that managers play in enabling and stifling knowledge sharing between staff. The final dimension relates to the *technological context* of knowledge sharing. Smith and McKeen (2003) describe this as probably the least important motivator of knowledge sharing, but state that technology often receives considerable financial resources and must be considered an element of the knowledge sharing framework.

Abidi (2007)'s Leveraging Internet-based Knowledge Sharing (LINKS) model characterises healthcare knowledge sharing solutions at three interrelated levels, i.e. conceptual, operational and compliance (see Figure 2.6) . The conceptual level predicates knowledge sharing as a function between three elements: *healthcare knowledge*, *knowledge sharing context* and a *knowledge sharing medium*. The operational level addresses functional issues in terms of *technical infrastructure* design metrics, and occupational issues in terms of strategies to establish a *culture* of collaboration between stakeholders. The compliance level addresses the underlying issue of perceived *trust* in the validity of the knowledge being shared.

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Figure 2.6 The LINKS framework for healthcare knowledge sharing

The healthcare knowledge modalities describe the healthcare activities needed for successful knowledge sharing. It describes further the various activities involved to transfer tacit and explicit knowledge throughout the system. The framework also describes the knowledge sharing context, i.e. the topic of the knowledge, the motivation for knowledge sharing, the relevance of the knowledge and the orientation of the stakeholders engaged in the knowledge sharing exercise.

Wiig's KM pillar framework (2002) discusses managerial influences and how it affect knowledge sharing in an organisation. The framework focuses on three pillars for managing organisational knowledge: a) the adequacy of knowledge; b) evaluating knowledge and knowledge activities; c) governing knowledge management activities. Wigg's framework however, does not consider external factors or resources that also contribute to knowledge sharing.

Waring (2013) focuses on the structural position and role of four types of intra-organisational brokers. The concept of "knowledge brokering" is introduced as a "strategy for supporting knowledge sharing and learning in healthcare". Waring (2013) examines how brokers vary according to their structural positions and relationships within and

between communities, and how this influences their ability to share and support the use of practice-based knowledge between professional and managerial communities. In particular, it compares the brokering activities of those with formal and less formal roles in regard to organisational learning. It suggests those occupying hybrid organisational roles, such as clinical-managers, are often best positioned to support knowledge sharing and learning because of their 'ambassadorial' type position and legitimacy to participate in multiple communities through dual-directed relationships. It focuses on identifying which healthcare actors might support knowledge sharing, focussing on their relationships and roles at the intra-organisational level.

Fernandez-Fernandez et al. (2010) describes business process modelling as a group of techniques that allow modelling those business aspects necessary for correct performance of the business process applications. López-Cuadrado et al. (2012) presents a framework for Business Processes Modelling that allows experts to represent and to share their knowledge with other experts by means of shared and controlled vocabularies.

2. Frameworks that have focused on knowledge sharing at the team level

Ghobadi (2012) presents a framework that can be used for predicting effective knowledge sharing behaviours in cross-functional project teams. It proposes three dimensions of cross-functional cooperation (cooperative task orientation, cooperative communication, and cooperative interpersonal relationships) that can be used to directly drive effective knowledge sharing behaviours.

He et al. (2013) integrated framework of various factors focuses on team collectivism, within-team competition and team empowerment and their impact on knowledge sharing and team flexibility and how it impacts on knowledge sharing within the organisation. It suggests that team development competition and team hyper competition has an indirect relationship with knowledge sharing and team flexibility through team empowerment.

3. Frameworks that have focused on knowledge sharing at the individual level

Ipe's (2003) theoretical framework identifies six components that influence knowledge sharing and incorporates these factors into four dimensions (see Figure 2.7). In the first dimension, the *nature of knowledge* shared is influenced by the tacit or explicit nature of the knowledge, as well as the value of the knowledge. In the second dimension, the *motivation to share* is influenced by both internal and external factors. In the third dimension, *opportunities to share* are defined as purposive learning channels consisting of formal mechanisms such as structured work teams, technology based systems and training programmes that are designed specifically to facilitate the acquisition and dissemination of knowledge. The majority of knowledge shared through formal channels will be explicit in nature. Conversely, relational channels include personal relationships and social networks. These channels are more conducive to building trust and facilitating the development of respect and friendship, all of which are considered to contribute to knowledge sharing. Three of the model's dimensions – the nature of knowledge, motivation to share, and opportunities to share – are included within the fourth dimension, culture of work environment. Ipe (2003) postulates the culture of the work environment heavily influences all the other factors.

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Figure 2.7 Factors that influence knowledge sharing between individuals in organisations (Ipe, 2003).

Existing frameworks in knowledge sharing can be classified according:

- Frameworks focusing on knowledge sharing at organisational level
- Frameworks focusing on knowledge sharing at team level
- Frameworks focusing on knowledge sharing at individual level

Within these, the following issues were further explored:

- Identification and categorisation of knowledge factors
- Identification of knowledge sharing activities
- Identification of people within the organisation who facilitates knowledge sharing
- Addressing the effect of managerial influences on knowledge sharing

None of these frameworks however explore the NGO from a holistic point of view and consider all the components needed for efficient and effective knowledge sharing. They also do not consider indicators needed within the NGO to facilitate effective knowledge sharing.

2.5   Frameworks relating to NGO management

Based on the review carried out of the literature on this topic and the analysis and appreciation of the domain of NGO management, frameworks in this area appear to fall into the following categories:

1.   Frameworks that have focused on power within the NGO:

Etzioni's (1986)'s framework was based around the concept of "compliance" and is concerned with the relationship within organisations between those who have power and those over whom this power is exercised. Etzioni's (1986) argued that people can be integrated into organisations through the exercise of power towards three different possible kinds of compliance:

- *coercive*, which is the application or threat of physical sanctions
- *remunerative*, which is based on control over material resources and rewards
- *normative*, which is based on the manipulation of symbolic rewards and deprivation and the power of persuasion.

Etzioni argues that in any single organisation, one form tends to dominate although the main forms of compliance may all be found in all organisations. The dominance of each type of power relation can therefore be equated with the different type of organisations: government, business and NGOs respectively. Etzioni argues that NGOs dominantly use degrees of normative power to achieve compliance. This is achieved because they build the commitment of their workers, volunteers and members and compensate them mainly through symbolic reward, and not through financial compensation based on profit making. Government and business, he argues are all held together by the "glue of value-driven action and commitment" which is different to NGOs.

2. Areas that have categorised the relationships that affect the NGO

De Graaf's (1987) framework situates the NGO within three circles of control. The first contains the internal factors that can be largely *controlled* such as staffing, budgeting, planning specific activities, setting objectives or choosing organisational structure. The second encompasses the NGO's wider relationships, which can be *influenced* or changed through active processes of persuasion, lobbying, patronage, co-option and collaboration. The third encompasses relationships which can usually be *appreciated* by the NGO, such as wider political structures, the macro-economic system, the technological environment and the international dimensions of context.

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Figure 2.8 A Framework for Strategic NGO management (adapted from De Graaf, 1987)

This framework shows the ways in which NGO management is both strategic and flexible. It makes it easier for NGOs to seek out opportunities to influence change, as well as reacting to shifts in wider economic and political processes. For example, a NGO that is

generally involved in service delivery may decide at a particular moment that an opportunity to lobby the government over a particular issue should be exploited.

3. Areas that have categorised management activities within the NGO

Lewis (2001) tries to set out the terrain for NGO management. He developed a conceptual framework for NGO management that can be broken down into three inter-related areas of management: 1) the activities which the NGO is undertaking; 2) the relationships it seeks to maintain; and 3) the internal structures and processes of the organisation itself.

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Figure 2.9 Conceptual Framework for NGO management (Lewis, 2003)

There is currently very limited research in the area of NGOs, most of the research focus on NGO management. None of the frameworks in this area focuses of knowledge sharing.

2.6   Frameworks relating to HIV/AIDS

This section specifically investigates the various frameworks which pertain to HIV/AIDS. This section reviews evaluation frameworks/programmes developed by the World Health Organisation (WHO/UNAIDS) and other organisations. Based on the review carried out of the literature on this topic and the analysis and appreciation of the domain of HIV/AIDS, frameworks in this area appear to fall into the following categories:

1.   Areas that focus on indicators relevant to HIV/AIDS

WHO (2004b) defines an indicator as 'a number, proportion, percentage, ratio or rate that suggests the extent of achievement of a programme or summarises the level of some condition in a district or clinic's patient population in chronic care or on anti-retroviral treatment (ART).'   WHO (2011) provides guidelines on the construction of national-level core indicators. These indicators are divided into three categories: national commitment and action; national knowledge and behaviour; and national-level programme impact.

WHO (2005) concentrates on programmes for the scaling up of access to ART for people with HIV/AIDS while WHO (2004a) focuses on the prevention of HIV in infants and young children. They both present lists of core indicators and for each indicator they provide (a) guidance on its definition; (b) the rationale for its use and what it measures; (c) its measurement and the tools used for measurement; (d) the frequency of measurement; (e) its strengths and limitations.

Finn (2007) developed a manual, "A Guide for Monitoring and Evaluating of Population, Health, and Environment Programs (PHE)". This guide provides a series of established and evidence-based indicators which measures progress and promotes evaluation of PHE programs in the health environment field.   Finn groups indicators into five areas of importance: (1) population (2) health (3) environment (4) integration and (5) value added. She provides the following for each indicator: a clear definition, measurement level,

calculation, statement of purpose, data sources, time frame, data collection considerations, and strengths and weaknesses. This monitoring and evaluation guide intends to provide a selection of indicators that are applicable throughout the PHE community.

Martin et al. (2007) discuss the use of a system of metrics (Whole System Measures) that measure the overall quality of a health system and aligns improvement work across a hospital, group practice, or large healthcare system.

2. *Areas that focus on monitoring and evaluation of HIV/AIDS related activities*

UNAIDS (2004c) developed a conceptual framework (See Figure 2.10) for monitoring and evaluating HIV/AIDS care and support activities. This framework groups indicators into strategic areas: developing and implementing policy; the capacity of home-and community-based care; and the capacity to monitor and evaluate care and support. The framework also places each of the strategic areas at different levels, from global to national to programme.

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Figure 2.10 Conceptual Framework for Monitoring and Evaluating HIV/AIDS Care and Support (WHO, 2004c)

Although this guide focuses primarily on the clinical aspects of care and support, it is quite useful as it groups indicators into different strategic levels, and these may contribute to the framework proposed in this research. The guide also includes potential indicators for future development.

Each area has identified several priority interventions that have the potential to impact significantly the HIV/AIDS epidemic within the health sector. This strategic direction is quite useful as it can provide a basis on which the proposed framework can be based.

WHO (2004e) introduce a common monitoring and evaluation toolkit for HIV/AIDS, Tuberculosis, and malaria. This toolkit presents a framework in which to present a

selection of standard indicators HIV/AIDS, TB, and malaria. It discusses the importance of a monitoring and evaluation system and discusses good features of a monitoring and evaluation system. It also includes additional indicators for specific programme areas. The framework is divided into four different levels namely, input, process, output, outcomes and impact. It also focuses on area, key questions and indicator examples. The toolkit then provides an overview of the three diseases under the following categories: prevention, treatment, care and support and supportive environment. Although the indicators were developed for national level, it can be used or adapted to organisational level.

WHO (2000) proposes a conceptual framework for monitoring and evaluation of HIV/AIDS programmes. The accompanying guide summarises the best practices in the field of monitoring and evaluation (M&E) of national HIV and AIDS programmes at the end of the 1990s, and recommends options for M&E systems in the future. It also provides a useful guidance for selecting indicators to monitor and evaluate interventions. This could be of particular importance for the proposed framework being developed.

The Operational Plan for Comprehensive HIV and AIDS Care, Management and Treatment for South Africa (See Figure 2.11) was developed in 2003 with the aim to strengthen the management of the HIV, AIDS and Sexually Transmitted Infections (STI) in the country.

The South African Department of Health therefore developed a comprehensive Monitoring and Evaluation (M&E) Framework which was designed to measure progress towards the achievement of two interrelated goals of the comprehensive HIV and AIDS plan (South African Department of Health, 2005). The framework aims to monitor the resources invested, the activities implemented, and services delivered as well as evaluate outcomes achieved and long-term impact made. The objectives of the framework are to collect and provide information that will be used to:

- track progress on implementation of all components of the comprehensive HIV and AIDS care, management and treatment plan

- identify gaps and weakness in service provision
- support clinical management of the patients
- plan, prioritise allocate and manage resources
- monitor the impact of HIV and AIDS on health care systems and communities
- measure effectiveness of treatment.

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Fig. 2.11 Monitoring and Evaluation Framework: Operational Plan for HIV and Care, Management and Treatment of South Africa (South African Department of Health, 2005)

3. *Areas that focus on humanitarian responses to HIV/AIDS*

Samuels et al. (2008) developed a conceptual framework that assists in the guidance for humanitarian responses to HIV/AIDS to different type of emergencies. They draw on research from five countries facing different kinds of emergencies and argue that "one size

does not fit all" nor do the same priorities and needs occur in the same way in all emergencies. They argue that each country or emergency responds differently and as such should be treated differently. The framework concentrates on three categories: i) impact of emergencies on the risk of HIV transmission; ii) the impact of emergencies on people's resilience and ability to cope with the impacts of HIV and AIDS on their livelihoods and, vice versa, the effect of HIV and AIDS-related illness and death on people's ability to cope with emergencies; and iii) the effect of emergencies and health and other HIV-related services.

This section reviewed evaluative frameworks and showed the importance of developing key indicators and provided a useful guide for selecting indicators to monitor and evaluate intervention programmes. Following this discussion it is proposed that the selection, construction and categorisation of adequate indicators for monitoring and evaluating programmes would be important in the development of the proposed framework. This section also reviewed evaluative frameworks developed by the South African government and by businesses. These frameworks provide input to the development of the proposed research. The importance of developing key indicators has been highlighted as has the provision of useful guidance for selecting indicators to monitor and evaluate intervention programmes.

In summary, several frameworks have been developed that looked at evaluating HIV/AIDS programmes but there is no single existing framework that addresses the role of knowledge management or knowledge sharing in HIV/AIDS NGOs in South Africa.

2.7   Summary of the lessons learned from the literature review

This chapter provides a review of the key points of focus pertaining to this research and presents evidence of the literature gaps identified in Section 1.1 of the thesis introduction. It identifies the need for a greater research focus on knowledge sharing within the South African HIV/AIDS NGO sector.

The first section of the review presents South Africa and the HIV/AIDS NGO sector in South Africa as the specific context in which this research is focused. A brief history of the evolution of this sector is presented and the importance of knowledge sharing within this context is discussed.

The review also introduced the foundations of knowledge and presented a selection of the many knowledge concepts. The concepts of knowledge management and knowledge sharing are presented incorporating an overview of the various approaches and frameworks that has been developed to guide scholars and practitioners in knowledge management research and practice. The section continued by identifying the key knowledge processes as determined by a range of scholars. Of these processes, knowledge sharing forms the basis of this research and further elucidation was provided through a more in-depth view of this process.

The review has presented several important approaches to knowledge sharing and discussed a range of factors that have been identified by scholars as pertinent to the knowledge sharing domain. The identification of useful elements and concepts that ought to be in the proposed framework being developed has been achieved by identifying elements of best practice within the reviewed frameworks. Overall, the majority of papers present aspirational frameworks for implementing knowledge sharing, with sparse theoretical and empirical underpinning. The frameworks do not adequately consider all aspects to effectively implement knowledge sharing in a sustainable way.

This chapter provides a review of the literature in these areas and Table 2.6 provides a summary of the factors from these areas which has an effect on how knowledge is shared within the HIV/AIDS NGO.

Table 2.6 Summary of factors that influences knowledge sharing in an HIV/AIDS NGO

Factors that influence knowledge sharing	Environment
Knowledge sharing behaviours	Internal
Organisational commitment	Internal
Social environment/interaction	Internal
Organisational structure	Internal
Organisational culture	Internal
Incentives and Rewards	Internal
Technology	Internal
Motivation	Internal
Leadership	Internal
Training	Internal
Performance improvement (Quality)	Internal
Communication	Internal, Micro
Government climate	Macro
Technology	Internal, Macro
Knowledge Sharing Opportunities	Internal
Management	Internal
Trust	Internal
Power	Internal
Political Structures	Macro
Economic climate	Macro
Government policies	Macro
Leadership	Internal
Structured work teams	Internal
Relationships with external entities	Micro
Governing boards	Micro
Human Resource Management	Internal
Roles and Internal Structures	Internal
Organisational aims and Organisational structures	Internal
Managing or involving volunteers	Internal
Finance	Internal
Organisational Chart	Internal
Training Programmes	Internal

It has become clear from this chapter that there is no unified approach to knowledge sharing in HIV/AIDS NGOs, but the researcher is not advocating that there should be one prescriptive approach for the sharing of knowledge in different NGOs. The challenge is to establish a generic framework with an appropriate theoretical underpinning that is understandable and provides guidance for managers in a HIV/AIDS NGO to consider successful engagement, prior to implementation and ultimately a sustainable approach.

CHAPTER 3: INITIAL EMPIRICAL RESEARCH

The previous chapter discussed the context within which the research was undertaken and a review of the relevant literature. A range of factors and frameworks from the knowledge sharing literature were identified and considered which were then conceptualised into an initial conceptual framework.

This chapter provides an account of the emerging issues that arose from empirical work conducted at HIV/AIDS NGOs in South Africa at the start of the research. The purpose was to (1) gauge the necessity for knowledge sharing in HIV/AIDS NGOs in South Africa; (2) to identify some of the issues regarding knowledge sharing; and (3) to identify some of the elements that should be considered in a knowledge sharing framework.

3.1   An introduction to the initial empirical research conducted

In August 2008, research was conducted at two organisations in KwaZulu-Natal, South Africa to establish the needs of non-government organisations in terms of knowledge sharing. Research was conducted at The AIDS Foundation of South Africa (AFSA) and Sinikithemba-Clinic, McCord Hospital. Both NGOs are based in Durban in KwaZulu-Natal, the province in South Africa most affected by the HIV/AIDS epidemic. The chapter concludes with the findings derived from this initial empirical research.

3.2 The AIDS Foundation of South Africa (AFSA)

3.2.1 Background of organisation

The AIDS Foundation of South Africa (AFSA) was founded in 1988 and was the first registered HIV/AIDS NGO in South Africa. AFSA's main aim is to alleviate the impact of HIV and AIDS through the implementation of health and community development projects in vulnerable communities in South Africa. They work mostly with rural, vulnerable and hard to reach communities. AFSA acts as an interface between donors and community based organisations (CBOs) and non-government organisations (NGOs) working in the HIV and AIDS sector. Funds received from the donor are strategically placed with the selected organisations and provide them with on-going mentoring technical support and capacity building. This permits partner institutions to establish appropriate interventions to advance the health status and well-being of affected people in the communities. AFSA is a single independent registered NGO but work with other NGOs and CBOs on several of its programmes for example *The Youth Ambassador Programme* and *The Community Work programme.*

The main objectives of AFSA are:

- To provide the necessary resources and support to CBOs and NGOs to implement programmes for the effective prevention of HIV and the mitigation of the impact of AIDS
- To develop the skills base within target CBOs and NGOs and to enable these organisations to plan, implement, monitor and evaluate their work effectively

These objectives are achieved by:

- Providing grants to selected CBOs and NGOs for programme implementation;
- Strengthening the target CBOs and NGOs through regular monitoring and site visits, as well as structuring and mentoring these organisations through capacity building programmes.

<u>*Staffing and Management Structure*</u>

As at 31 March 2013, AFSA had 44 full-time staff members – made up as follows:

- Management and supervisory personnel: 10

- Professional and technical personnel: 18

- Administrative and support personnel: 16

Figure 3.1 shows the organisational structure of AFSA. The management and supervisory personnel are highlighted in blue. This organisational structure is based on the interaction between AFSA and the researcher.

AFSA is organised based on four broad operational areas. The overall responsibility for these operational areas lies with the Operations Manager. The operations manager was my main point of contact at AFSA and the person who took part in the initial empirical investigations and evaluated the framework during the latter part of this study. The operations manager is responsible for the following operational areas:

a. *Grant Making and Technical Support*

The responsibility of this department is for the screening and selection of grantees, assisting them to plan and develop via work plans and budgets, ongoing coaching and mentoring to grantees and monitoring and evaluating the performance and complaints of grantees. During the 2012_13 year, AFSA provided funding and technical support to 57 CBOs and 9 NGOs.

b. *The Youth Ambassador Programme*

AFSA, in partnership with the Office of the Premier in KwaZulu Natal, trained and supported Youth Ambassadors in the Ugu District to conduct Behaviour Change Communication and Education (BCCE) with young people. This aimed to reduce HIV and other STI, unplanned pregnancies, substance and alcohol abuse etc. The Youth Ambassadors were also provided with a manual and materials to guide and

assist them in their work. In the 2012_13 year, there were 370 Youth Ambassadors working in the Ugu district. AFSA staff conducted regular field visits to promote support to these Youth Ambassador Programme. Several volunteers worked with AFSA on this programme, although an exact number is not available.

c. *The Community Work programme*

The Community Work Programme was implemented by AFSA in the Ugu and Sisonke Districts of KwaZulu-Natal, in partnership with the Lima Rural Development Foundation and the Department of Cooperative Governance and Traditional Affairs. The programme created an employment 'safenet' for 7 500 rural participants, by providing them with a predictable number of work days and income each month. AFSA was tasked with managing the programme in seven local municipalities. This Programme forms part of the government's long-term strategy to create employment opportunities and to reduce poverty, and is expected, therefore that this intervention will continue for many years to come. Several volunteers worked with AFSA on this programme, although an exact number is not available.

d. *Capacity Development and Training*

This department conducts and organises accredited training for AFSA grantees, skills development workshops and developing learning and sharing platforms.
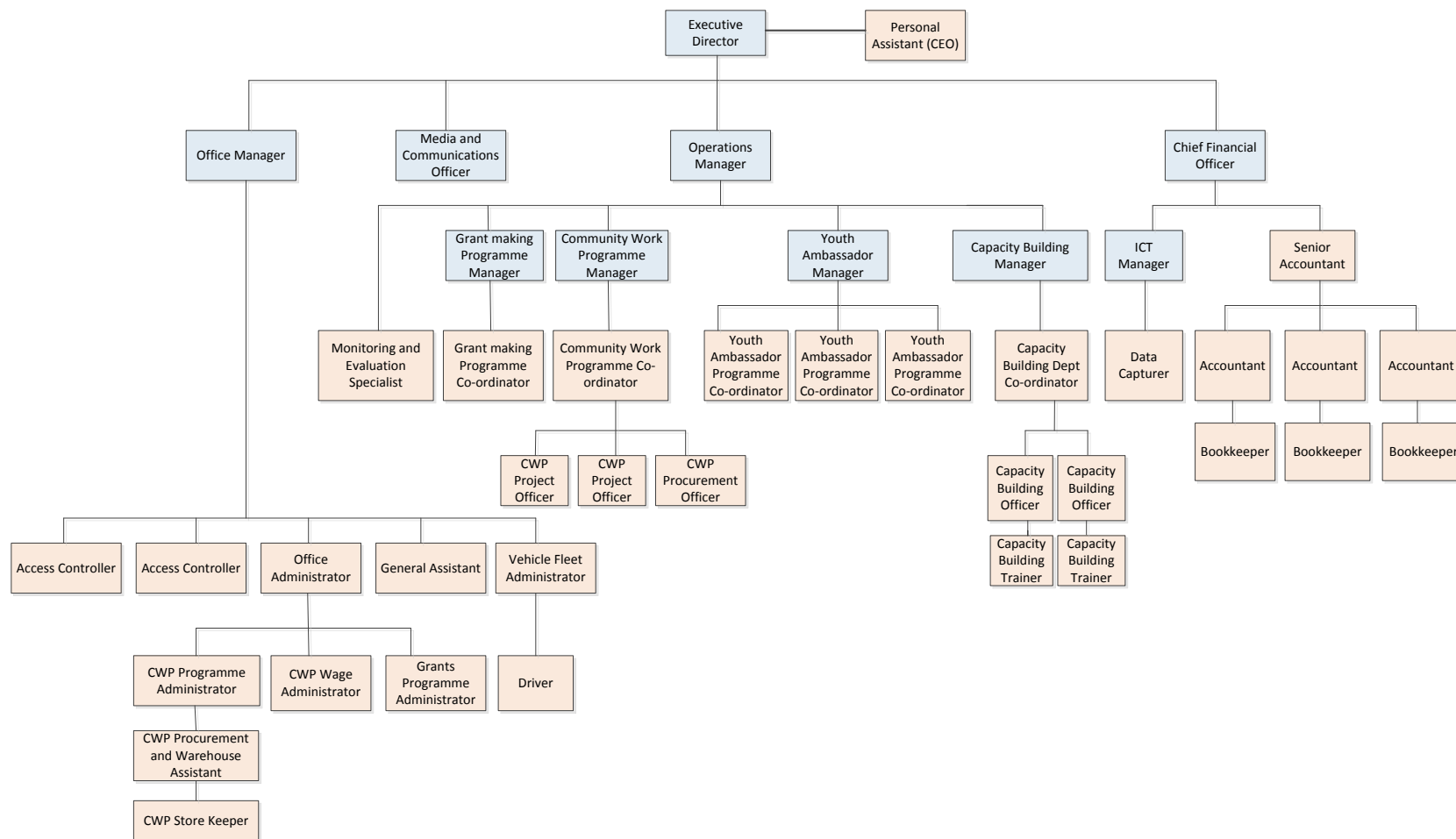
Figure 3.1 AFSA Organisational Structure

During 2012, AFSA broadened its scope of work beyond the traditional areas of sub-granting funds, capacity development and compliance monitoring of civil society organisations. It became more involved in managing and co-ordinating the implementation of large-scale programmes, on behalf of third parties. In April 2012 AFSA was appointed as a Provincial Implementing Agent for the Community Work Programme in the Ugu and Sisonke Districts of KwaZulu Natal. The programme created an employment 'safenet' for 7 500 rural participants, by providing them with a predictable number of work days and income each month.

A second area of new work for AFSA was the Youth Ambassador programme. AFSA was appointed to train and support 320 Youth Ambassadors working in the Ugu District of KwaZulu Natal to conduct behaviour change communication and education (BCCE) with young people to reduce HIV and sexually transmitted infections (STI), unplanned pregnancies, substance abuse and other risk behaviours. AFSA's management and implementation of the programme during the past year was deemed so effective that the programme partners have asked AFSA to extend the BCCE interventions to the uMgungundlovu and Amajuba districts over the next 2 years.

In 2012, the Capacity Building Department conducted training for 432 personnel from partner organisations, 320 Youth Ambassadors and practical onsite training and demonstrations for over 3000 participants from the Community Work Programme.

As indicated above, AFSA has 44 full-time staff and during 2012 has worked with over 60 CBOs and NGOs in an attempt to alleviate the effects of HIV and AIDS. The programme co-ordinators especially need access to donor requests. Certain donors only target CBOs working, for example, with vulnerable woman and children, while others only want their money placed with prevention services. All members of AFSA therefore need to communicate clearly with each other about these donor requests. AFSA also needs access to the on-going work of these CBOs and as they support them throughout the three year cycle have to be able to provide them with on-going support. If AFSA does not have the necessary resources to support the organisation, they often contact other organisations to provide them with the necessary resources needed to

assist the CBO. An example might be a CBO working with vulnerable rape victims. As such, AFSA would need the support of health services and qualified counsellors, to provide support for the victims. They therefore need to work closely with other NGOs in the area or with NGOs near to where the CBOs are based.

During these research activities at AFSA, the researcher investigated the extent to which information and knowledge is shared within the NGO (section 3.2.2) and also how AFSA interacts with other NGOs (section 3.2.3).

3.2.2 *Questionnaire*

Staff were asked to complete a questionnaire (Knowledge Hub Questionnaire) about the current practices of information and knowledge sharing and the management of such sharing at AFSA. The questionnaire was developed to enable managers to see graphically how well advanced the NGO is in managing information sharing and by using knowledge management squares can prioritise areas within the NGO which areas require improvement.

The questionnaire (Appendix 2), developed by *The Knowledge Hub*, consisted of the following series of statements concerning the following aspects of information and knowledge sharing:

- *Awareness and Commitment.* Shows whether staff understands the concept of managing information sharing, and whether senior management are committed to its use.
- *Strategies to encourage information sharing.* Whether the organisation has committed to a programme of information sharing improvement and how it is managed to ensure business benefit.
- *Applying and employing information.* Whether the organisation actually uses and exploits the information inherent in the company in an effective manner.

- *Monitoring and Review.* Whether the organisation measures the impact information sharing and particularly the management of intellectual assets has on the organisation.

- *Organisational Structure and Processes.* The degree to which the organisational structure supports information sharing.

- *Human Resources.* The extent to which human resources are considered explicitly in support of information sharing.

- *Culture.* Shows whether the behaviours within an organisation enable effective information management.

- *External Factors.* Demonstrates whether an organisation is attempting to look beyond its own boundaries in order to maximise the business opportunities.

- *Incentives.* Whether the organisation properly reward those that support its efforts towards information sharing.

- *Information Technology.* Indicates whether the existing information technology is sufficient and used effectively enough in supporting information sharing.

- *Maintenance and Security.* Assesses the organisation's protection and maintenance and information assets.

Results from the Knowledge Hub Questionnaire

The results were helpful and provided a better understanding about the HIV/AIDS NGO, by identifying associated issues that could be addressed by knowledge sharing. Overall, according to the Knowledge Hub Questionnaire, staff preferred a motivating, organised and caring organisation, which is creative, exciting and dynamic.

An analysis of the results show that:

- Staff placed high importance on the commitment of the governing board to information and knowledge sharing but currently this is lacking in the NGO.

- Staff felt that key performance indicators for information and knowledge sharing are important but currently not effective in the NGO.

- Staff felt that there is a need for formal systems to encourage and facilitate intra departmental and inter departmental dissemination of information and knowledge.

The results also show that:

- Staff felt that the NGO was committed to a programme of information and knowledge sharing.

- The NGO uses the information and knowledge in an effective manner.

3.2.3 Interview

An interview was held with the operations manager at AFSA. The interview questions can be found in Appendix 3. The purpose of this interview was to establish the technical, motivation, communication and power dynamics within the NGO.

During the discussion, Communications emerged as a specific problem; in particular the perception was that:

- there is not enough opportunity for staff to let management know about things that affect them and their work
- there is inadequate consultation on management decisions
- there is little recognition for the work produced and poor feedback on performance and praise for good work
- staff felt that disagreement with proposed solutions by senior management can damage career prospects.

Although most staff understood and supported the need for change and indeed looked forward to the challenge, they did not feel involved and believed that the change process was poorly managed, particularly communication. Despite this, staff had a clear understanding of the contribution they were expected to make and understood the organisational objectives.

3.2.4   *Summary of research conducted at AFSA*

From the research conducted at AFSA, the following are highlighted to demonstrate the potential synergy with the concept of knowledge sharing at AFSA:

- The development and maintenance of effective partnerships with CBOs, other NGOs, donors and government health organisations by giving clear and open information and encouraging collaboration between them (external knowledge sharing initiative).

- The promotion of effective financial management, accountability and responsibility for the use of public funds, and value for money. NGOs are regarded as independent organisations responsible for managing their own affairs effectively and efficiently. They receive money from donors but have accountability of how this money will be spent. They also need a reporting mechanism back to the donors on an annual basis to show how the money has been spent (external and internal knowledge sharing initiative).

- As indicated, AFSA worked with over 60 CBOs and the project officers regularly visit these organisations for capacity building, often in very rural and remote communities. AFSA need to know at all times where their staff are based and have a good communication system in place (internal knowledge sharing initiative).

- Effective IT and management systems also need to be in place to improve communication in the NGO (internal knowledge sharing initiative).

- AFSA also need to be up to date with the changes in government and healthcare policies (external knowledge sharing initiative).

The foregoing confirmed the researcher's initial views that a knowledge sharing framework is needed that could support knowledge sharing in AFSA and other HIV/AIDS NGOs in South Africa and areas have been identified which could be included in this knowledge sharing framework along with:

- development and implementation of internal policies and procedures

- the ability to learn and share the learning experience with other NGOs, thus avoiding duplication and improving effectiveness

- effective IT infrastructure to ensure the tools necessary for accuracy, speed of information exchange and storage

- training, development and awareness of staff expertise i.e. knowing who knows what and where staff resides at any one time

- reward and recognition of employees, incentives to encourage knowledge sharing

- ability to create, share and utilise knowledge with other NGOs.

3.3   Sinikithemba Clinic, McCord Hospital

3.3.1   *Background of organisation*

Sinikithemba Clinic was based at the semi-private McCord Hospital in Durban. The main aim of McCord Hospital was to provide comprehensive and affordable quality health care to patients who do not have health insurance. In 1996, a dedicated HIV clinic was established at McCord Hospital in response to the growing and multi-faceted needs of people living with HIV/AIDS. The clinic was named Sinikithemba, (an isiZulu word meaning 'We give Hope') and was established as a place where people affected by HIV could find acceptance, hope and help. The care centre provided medical, psychological and spiritual outpatient care to people who have contracted the HIV virus. The expansion of the antiretroviral (ART) programme following PEPFAR funding has resulted in Sinikithemba's shifted from a medical centre to a dedicated ART centre. They provided ART as part of a standard package of care (R140 per month approximately £10), with no extra cost for drugs or laboratory tests, resulting in more patients being able to access these lifesaving drugs. In 2008, Sinikithemba had one of the largest clinic cohorts of patients on ART in the province of KwaZulu-Natal.

Unfortunately in March 2013, PEPFAR phased out its financial support and McCord Hospital had to shut down. About 4 000 HIV-positive patients that were treated at the semi-private McCord Hospital were transferred to receive treatment at public clinics.

3.3.2 *Interview*

An interview was held with the HIV Programmes Co-ordinator at McCord Hospital. In the meeting she spoke about the "sheer volume" of new patients entering the system every month. Sinikithemba Clinic accepted over 100 new patients per month. The "scale of demand over supply" makes HIV/AIDS different from other healthcare problems and also indicated that "Nobody has a handle of what is going on" in terms of figures, treatment, management.

She recognised the need to track progress of these large numbers of patients between numerous departments and interventions. She felt that if various departments could share knowledge, duplicated work could be reduced and hopefully lives could be saved.

In 2006, McCord Hospital formed a partnership with Zoe-Life, a Durban-based health capacity and development organisation. Together they developed a plan to decentralise HIV care and treatment to primary health care settings that included clinics, community-based NGOs and places of work. With the help of a PEPFAR grant, they were able to initiate the decentralisation programme at 12 primary healthcare sites. Partnerships were also formed with several NGOs. The aims of the programme were to increase access to comprehensive integrated care and treatment at community level and to provide support to initiate new primary care-based services.

In June 2008, the Discovery Foundation awarded McCord Hospital the prestigious Discovery Foundation Excellence Award in recognition of the contribution which the hospital made to healthcare professionals in South Africa.

The main issues that emerged from the research conducted at Sinikithemba-Clinic, McCord Hospital were:

- The HIV/AIDS epidemic was different from other healthcare problems due to the large number of people infected and affected by this epidemic.

- HIV/AIDS organisations were working independently to address the problems, but there is no overall coordination between them and no process to share knowledge.
- There is a need for a 'knowledge-map', an overview of what the different organisations are delivering.

This interview at McCord Hospital confirmed the researcher's initial views that there is a need for HIV/AIDS NGOs to support and help each other, especially for those who want to share knowledge. However, HIV/AIDS NGOs needed to standardise processes within the NGO and provide a knowledge map of activities within the NGO before they can draw a comparison on what other NGOs are doing.

3.4   Analysis of HIV/AIDS NGOs in KZN

Early in the research, the researcher undertook a brief analysis of HIV/AIDS NGOs in KwaZulu-Natal (KZN), the province hardest hit by the HIV/AIDS epidemic in South Africa. The researcher used the internet to identify these HIV/AIDS NGOs. There was not a single database that contained all this information. The only directory related to only HIV/AIDS services was The Southern African HIV and AIDS Regional Exchange (SHARE). SHARE developed a website that offers directories of organisations. It does not however differentiate between the programme areas identified by PEPFAR. Once the HIV/AIDS NGOs were identified and government organisations eliminated, the researcher found approximately 152 NGOs in KZN. The HIV/AIDS NGOs were classified under 17 programme areas, as identified by PEPFAR (see Table 3.1) for an overview of these areas). The results are listed in Appendix 1, with their contact details and PEPFAR Programme Areas. This directory serves as a resource for a HIV/AIDS NGO to help them identify HIV/AIDS NGOs in their area that undertake similar programme activities from which the HIV/AIDS NGO could benefit.

Table 3.1   PEPFAR Programme Areas (PEPFAR, 2010)

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3.5   Summary of the initial empirical investigation

This initial phase of research provided an understanding of a HIV/AIDS NGO's key issues and challenges that would need to be addressed if they were to consider developing an approach to knowledge sharing. The results of *The Knowledge Hub Survey*, conducted in 2008, provided an overview of staff attitudes at AFSA, revealing that the main issues of concern related primarily to organisational communication, interaction and relationships with donors and board members, and motivation. Research conducted at Sinikithemba Clinic in 2008 revealed that HIV/AIDS NGOs were working independently to address the problems caused by this disease and no mechanism was in place to share knowledge.

The initial empirical research suggested that there was an interest in knowledge sharing, and there were organisational issues that needed to be addressed within the HIV/AIDS NGO before effective knowledge sharing could be achieved.

Communication emerged consistently throughout the research and communication is core to the success of knowledge sharing.   Knowledge sharing requires multi-dimensional interaction at all levels of the organisation, internally and externally. Motivation and recognition for work undertaken are all key attributes to the success of workers in the NGO. The advantages that knowledge sharing can bring to this situation once again derive from communication activities such as peer support, mentoring and coaching.

Staff at AFSA cited a creative and dynamic environment as being one they would prefer to work in. Knowledge sharing contributes significantly to creativity and organisational innovation and at an operational level is likely to reduce duplication of effort and enhance creativity leading to smarter working practices and identifying weaknesses where training and development is required. The concept of knowledge sharing is synonymous with the learning organisation, which incorporates both explicit and implicit training and development, for the organisation and the individual. Learning from experiences and from each other, can contribute significantly so as long as the ability and appropriate contextualisation action is taken. Changing roles, awareness of expertise (who knows what), reward and recognition should all be considered if knowledge sharing is to receive serious consideration.

The information aspects of knowledge sharing relates to business processes. Strategic management of information resources and human resources assist with effective decision making. This includes the IT infrastructure to facilitate the speed of information exchange, storage of policies and procedures and documentation that comprise organisational memory and implementation processes. Effective IT should be available to underpin this, but is not the final conclusion.

The foregoing identifies some of the key issues and characteristics of HIV/AIDS NGOs which are issues that a framework for the support of knowledge sharing would have to consider.

CHAPTER 4: RESEARCH METHODOLOGY

The previous chapter offered background information of the needs of HIV/AIDS NGOs in South Africa. A need for a knowledge sharing framework was established.

This chapter guides the reader through the research methodology and design of such a framework. It is a general discussion of the research approaches, research strategies, research choices and research methods used for this research. It discusses the methodological choices that have been made in the light of the research problems addressed and its context as described in Chapter 1.

4.1 The need for a research methodology chapter

This chapter describes the methodology used to develop a framework to support intra-organisational knowledge sharing in HIV/AIDS NGOs in South Africa. The key issues for this research, as discussed in the previous chapters, include knowledge sharing in HIV/AIDS NGOs in South Africa. It is important to understand how these issues have been studied and therefore the overall research strategy adopted is outlined. This will allow the reader to consider the relevance of the strategies and methods and their analysis for the purposes of addressing the research questions.

The chapter explains why a qualitative empirical method has been chosen and follows the viewpoints of Silverman (2013) providing answers to the following questions:

1. What are the theoretical assumptions that shaped the data collection and analysis reported in this research?
2. What were the factors that made the researcher choose to work with these particular data?

3. How did the overall strategy adopted and the research design and technique used by the researcher affect the conclusions of the research and how can the researcher still generalise from her analysis?

These topics will be addressed in the body of research as follows:

- Section 4.3 and section 4.4 summarise the general approaches used by the researcher to study intra-organisational knowledge sharing in HIV/NGOs in South Africa.

- Section 5.2 highlights the outcome of the literature review and empirical research and informs how this impacts on the development of the framework.

- Section 6.2, describes the strategy used to evaluate the framework.

4.2   Concepts which support the conduct of this research

Silverman (2013) suggests that there are different levels of analysis to be used in research (see Figure 4.1). This section explains how these terms relate to one another in the context of this research and how they are understood in the remainder of the thesis.

Models

The research process usually begins with the researcher considering what they bring into the inquiry, such as personal history, views of themselves and others, and ethical and political issues. The researcher's assumptions are typically the first ideas that are formed in developing the research but not always made explicit in the research design. This research, like most other research, is influenced by the researcher's understanding of the reality surrounding the problem. The researcher's own experiences brings along certain theories, paradigms and assumptions, "a basic set of beliefs that guides action" (Gupta, 2000). The researcher was born and raised under the apartheid system in South Africa and has a deeper understanding of the HIV/AIDS crisis as she knows people affected by the disease. This has shaped her experiences, beliefs, how she views herself and this will have an impact on this research. This understanding is referred to in the literature as *models*.   Senge (2006) agrees, describing models as "deeply ingrained

assumptions, generalisations, or even pictures or images that influence how we understand the world and how we take action". Huff (2008) agrees, articulating the importance of philosophical assumptions in research in that "it shapes how we formulate our problem and research questions to research and how we seek information to answer that questions".

Models, also called research paradigms, provide an overall framework for how reality is looked at (Silverman, 2013). A model, therefore describes the following:

- Beliefs about *ontology* (the nature of reality)

  The researcher's ontological position relates to "the nature of reality". When researchers conduct qualitative research, they are embracing the idea of multiple realities. In this research, for example, the researcher consults different perspectives on knowledge sharing; the perspective of the knowledge worker involved in funding distributions amongst HIV/AIDS NGOs, the perspective of an occupational nurse who works in an HIV/AIDS NGO, the perspective of the chief executive officer of a HIV/AIDS hospice, all different perspectives embracing the same problem.

- *Epistemology* (what counts as knowledge and how these knowledge claims are justified)

  Epistemology refers to our theory of knowledge, more specifically, how we acquire knowledge. Knowledge is known through the subjective experiences of people (Creswell, 2012). It is important then to conduct studies in the "field" where the participants live and work. Research was undertaken during 2008 and 2011, and this provided the researcher with a clear understanding of the environment in which it operates.

- *Axiology* (the role of values in research)

  Axiology acknowledges the value the research brings to the research. The researcher discusses the value that shapes the research together with the interpretation formed by the participants.

Concepts

Once the researcher has established a mental model, *concepts* emerged to be studied. Silverman (2013:112) define concepts as "clearly specified ideas deriving from a particular model." The concepts identified in this research are "knowledge management", "knowledge sharing", "HIV/AIDS NGOs in South Africa".

Theories

Silverman (2013:112) defines a theory as "an arrangement of sets of concepts which aims to define and explain some phenomenon". Silverman argues that theories provide a framework for critically understanding certain phenomena.

Hypothesis

A hypothesis explains a theory and is tested in research. Hypotheses are usually produced at the start of the research and are tested again later in the research.

Methodology

The methodology will define how the researcher will go about to research the phenomenon. It refers to the choices the researcher makes about how many cases to research, the methods to be used to gather data and how the data analysis will take place.

Methods

Methods are specific techniques used to gather or analyse the data. Research methods can involve either quantitative or qualitative techniques or both and instruments for collecting the data for example, questionnaires, surveys or participant observation.

Silverman (2013) has illustrated schematically the relation between models, concepts, theories, hypotheses, methodology and methods as follows:

This item has been removed due to third party copyright. The unabridged version of the thesis can be viewed at the Lanchester Library, Coventry University.

Figure 4.1 Different levels of analysis in research – adapted from Silverman (2013:114)

4.3   Theoretical assumptions

The theoretical assumptions in this research were determined by the following:

- the researcher's mental model (also referred to as research paradigm)
- the research ideas in the field of knowledge sharing that acted as a starting point of the research
- the concepts derived from these ideas above
- the theories supporting the point above, which lead to a hypothesis.

The section will define the researcher's theoretical assumptions by outlining each of these points.

4.3.1   Research Paradigms

The research is primarily concerned with knowledge sharing in HIV/AIDS NGOs in South Africa. The researcher understands that a HIV/AIDS NGO operates in different environments and that each of these environments will affect the NGO differently. The internal environment refers to the physical opportunity for formal and informal interaction to support explicit and tacit knowledge sharing. The micro environment refers to factors in the NGO's immediate area of operations that affect it performance and the macro environment refers to the major external and uncontrollable factors that influences the NGO's decision making and affect the NGO's performance and strategies. Each of these environments has factors which impact on how knowledge is shared within the HIV/AIDS NGO.

4.3.2   Research Ideas

During the early stages of the project, initial empirical investigations took place to help the researcher understand the need for knowledge sharing within HIV/AIDS NGOs. This understanding led to the definition of the main research question. However, other ideas also emerged from the early work carried out. These include the following:

- Knowledge sharing is a process that can benefit from lessons learned in organisations, NGOs and HIV/AIDS NGOs in South Africa
- HIV/AIDS NGOs have much in common with private organisations and with government organisations and as such share certain characteristics with them
- Certain standards and indicators need to be in place to support the HIV/AIDS NGO with its knowledge sharing practices.

4.3.3 Research Concepts

The main concepts that emerged from the set of ideas outlined above and therefore represent the key points around which this research was conducted included *knowledge, knowledge sharing, knowledge sharing processes* and *HIV/AIDS NGOs in South Africa*. This was supported by the literature review in chapter 3 and these concepts became part of the main research problem.

4.3.4 Theories

The focus of this research was defined by combining the initial empirical work carried out and a review of the relevant literature on the research topic of knowledge sharing. The appropriate background literature on existing approaches to knowledge sharing in different areas and organisations and their limitations were the equivalent to theories supporting the identification of the research problem. This is supported by Bryman and Bell (2007) who argue that instead of theories, the literature can inform the generalisation of research questions in what the authors perceive to be a relevant research topic.

4.3.5 Hypothesis

The ideas discussed above were organised around the main research question and informed by the initial empirical investigation and the relevant background literature.

The following hypothesis was defined:

> ***By developing a framework for knowledge sharing that considers a number of factors from the various environments in which the HIV/AIDS NGO operates, knowledge sharing in HIV/AIDS NGOs in South Africa can be improved.***

4.4   Methodology approach to data collection and analysis

The theoretical assumptions of the researcher and the practical issues which will be discussed in the body of the thesis informed the data collection and evaluation processes carried out in order to test the hypothesis.

This section describe the approach taken to data collection and evaluation using the terms research strategy or methodology, research design or research methods as discussed in section 4.3.

4.4.1   Methodology or Research Strategy

All research is guided by a defined research methodology. The methodology prescribes the methods by which research data are gathered and analysed. In order for a piece of research to achieve its aims, it must first identify and use suitable tools and techniques (O'Connor and Frew, 2004). These tools may be either qualitative or quantitative in nature. Quantitative research is when part of the research relies heavily on statistical analysis on which to draw conclusions or to test a hypothesis (Romeu, 2007). Quantitative techniques conclude by proving or disproving a specific theory that was tested (Huff, 2008). In quantitative studies, researchers therefore should know exactly what they are looking for before they commence their study (Neill, 2007). Qualitative research, on the other hand, bases its conclusions on discussions, thinking and knowledge in order to help to improve the understanding of an area of research (Silverman, 2013).

The nature of the research problem coupled with the epistemological and ontological orientations of this research implies that the research would be conducted following a qualitative methodology. The main reasons supporting this argument, included as outlined by Bryman (2012), are the following:

- The research is not involved with the testing of an existing theory as quantitative research does. Emphasis is placed on the use of existing theories already available in the literature relevant to knowledge sharing. The research also

focus on the generation of findings that are likely to contribute to the development of new theories related to how knowledge sharing processes can be improved in HIV/AIDS NGOs.

Qualitative research methods have become increasingly popular in areas such as health service research and health technology assessment (Pope and Mays, 2008). Qualitative approaches are necessary in healthcare when questions need to be asked about why patients and healthcare professionals behave in a particular way and to focus on the participant's feelings, meanings and experiences (Pope and Mays, 2008). Barbour (2001) argues that "the question is no longer whether qualitative methods are valuable but how rigour can be assured or enhanced". In this research, the process of triangulation was used as a way to obtain rigour and help develop credibility. Triangulation is discussed further in section 4.5.

Akpapa (2003) discusses the importance and reasoning behind using the qualitative approach in the area of HIV/AIDS. HIV/AIDS is a sensitive issue and fear of stigmatisation may halter communication. He argues that qualitative approach is especially suited for delicate issues; it responds to the complexity of situations and human behaviour and is attentive to different modes of communication (spoken language, body language, written records, etc). Akpapa (2003) also argues that because qualitative research is more concerned with the 'how' and the 'why', it seeks to grasp what is actually happening rather than just looking at regulations and norms. Qualitative research is also intended to give meaning to phenomena studied in their context. In this research for example the research focuses on HIV/AIDS NGOs in South Africa which because of several issues identified make the problem unique.

4.4.2   Research Design

Various empirical research methods exist, both quantitative and qualitative in nature. Yin (2009) suggests that within social sciences, five major research methods can be distinguished: experiments, surveys, archival analysis, histories and case studies. Within qualitative research Creswell (2012) distinguishes five research traditions: "the

historian's biography, the psychologist's phenomenology, the socialists's grounded theory, the anthropologist's ethnography and the social scientist's case study". Myers (2013) discusses action research, case study research, ethnographic research and grounded theory research. Each of these research methods has its own focus, discipline origin, and the method of data collection and analysis. The biography describes the life of an individual, the ethnography method describes and interprets a cultural and social group, the case study method develops an in-depth analysis of one or more cases, the action research method is focused on solving actual problems by actively participating and the grounded theory methods develops a theory grounded in data from the field.

None of these methods are adequate for the type of research proposed. The research follows the empirical research method proposed by Moody (2005). This method consists of the following steps:

1. *Formulation of Research Question*

   The research question(s) will formalise the objectives of the research.

2. *Development of a Theoretical Model*

   In order to be empirically tested, the research question(s) are transformed into a theoretical model, consisting of theoretical constructs (latent variables), causal relationships and measures (observed variables). The theoretical model in this research is based on an analysis of the literature and initial empirical research that took place at the collaborating institution. The theoretical model forms the basis both for collecting and analysing data, and may be modified as a result of the research.

3. *Development of a Hypothesis*

   A hypothesis defines an expected relationship between variable (based on causal relationships in the theoretical model), which can be empirically tested.

4. *Data Analysis*

   Data Analysis is then used to determine whether the theory (framework) is supported or not supported.

Figure 4.2 is a graphical representation of this method.
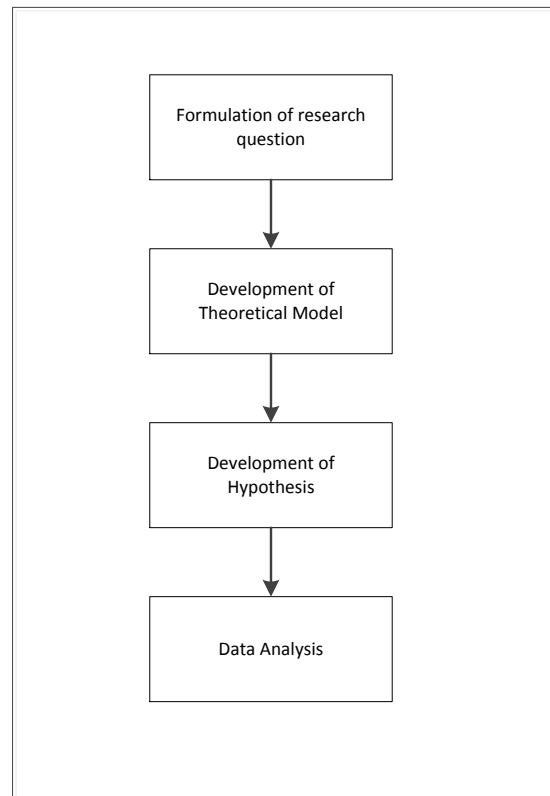
Figure 4.2 Empirical Research Method

As described before, the scope of methods is limited to the qualitative ones. Since this research aims to explore whether the theoretical framework, which is constructed before and during collecting the empirical material, provides a good explanation for what motivates people to share knowledge, the grounded theory method is not appropriate. Action research is not appropriate, because this research 'does not intend to contribute to the practical concerns of people in an immediate problematic situation'. Although a biography method would be an option (reconstructing and analysing what motivates one particular individual to share knowledge with different people), just like an ethnography method (spending a significant amount of time in an organisational setting, while immersing oneself in the life of the people sharing the knowledge), the empirical

research method was chosen as this method best matches with the capability of the researcher and the requirements of the research situation.

In the researcher's experience both the theoretical foundations imposed by the research context and the practicalities of its implementation imposed significant challenges, including:

- Demonstrating reliability and validity of the research findings. In order to arrive at reliable and valid, the research involved more than one knowledge intensive NGO. Once the framework was developed, senior members of the management team of a number of HIV/AIDS NGOs were invited to provide feedback and relate to their own experiences regarding the framework.
- Collecting and organising a consistent set of data relevant for the purposes of the research. The researcher sought to reduce the additional effort required from participants during the data collection processes.
- Engaging in successful collaboration with the organisation. Given the cost and risk associated to a joint venture between an organisation and the researcher in an attempt to study the knowledge sharing problem, the researcher concentrated on achieving a successful outcome for both parties involved.

The researcher made every effort to ensure that the findings were rigorous and relevant. The emphasis was therefore put on the validity of theoretical and methodological decisions made during the design of the research.

4.4.3   Research Methods

Empirical research offers access to a wide range of sources of evidence for example documents and artefacts, but also interviewing participants and carrying out surveys. Yin (2009) supports multiple sources of evidence for data collection and analysis strategies, triangulating these data and using theoretical propositions from the research literature to guide the research.

This has been the basis for the researcher's approach to data collection. The researcher used different methods to collect the data. This process was informed by the research questions and the relevant background literature on knowledge sharing. These methods include:

- An analysis of the different documents especially those related to the knowledge domains where knowledge sharing took place.
- Analysis of records from practitioner's dealing with specific issues relevant to the knowledge sharing process within their organisations.
- Interviewing individuals within the HIV/AIDS NGO involved in the research.

A combination of interviews, questionnaires, surveys and literature were used. Within this triangulation of methods and data sources were used to help provide credible results. Triangulation shall be discussed later in this chapter.

4.5   A Plan for the conduct of this research

Once the research questions had been defined and the theoretical assumptions and issues affecting the data collection and analysis had been understood, the researcher devised a plan for the investigation. This plan consisted of a research design and provided a framework for the collection and analysis of data. Kerlinger (1999:279) describes a research design as

> *"a plan, structure and strategy of investigation so conceived as to obtain answers to research questions of problems. The plan is the complete scheme or program of the research. It includes an outline of what the investigator will form from writing the hypothesis and their operational implications to the final analysis of data".*

Creswell (2012) asserted the importance of illustrating the research approach as an effective strategy to increase the validity of social research. The research design was continually evolving as learning and understanding developed and is shown in. A plan

for investigation, also called a research design provides a framework for the collection and analysis of data. Figure 4.3 provides an overview of process, showing how the investigation was undertaken. The model contains three stages of investigation. Within each stage several activities took place.

Although this research starts with existing theories and aims to end up with a new knowledge sharing framework, a continuous interplay exist between theories, the NGO practice and the researcher during the research process (see Figure 4.3). The research derived both from the identification of problems with respect to knowledge sharing within HIV/AIDS NGOs and the observation that existing theories have unsatisfactory explanations for these problems. Based on the research questions, theories are selected that could contribute to constructing a satisfactory knowledge sharing framework and create a conceptual lens accordingly. Subsequently, an empirical research design is developed, that operates as the linking pin between the theoretical and the empirical part of this research. After conducting the study, the empirical materials are described and analysed. Eventually it is reflected upon the initial research questions.

The research design (Figure 4.3) was structured in such a way as to achieve its aims. The research design phase began with a description of the different elements of the literature review that was required in order to place the research in context. Subsequent stages were concerned with incorporating the elements identified in the initial stage into a system capable of supporting knowledge sharing amongst HIV/AIDS NGOs in South Africa. The final stage of the research design involved obtaining feedback from a set of evaluators before a final framework was produced.
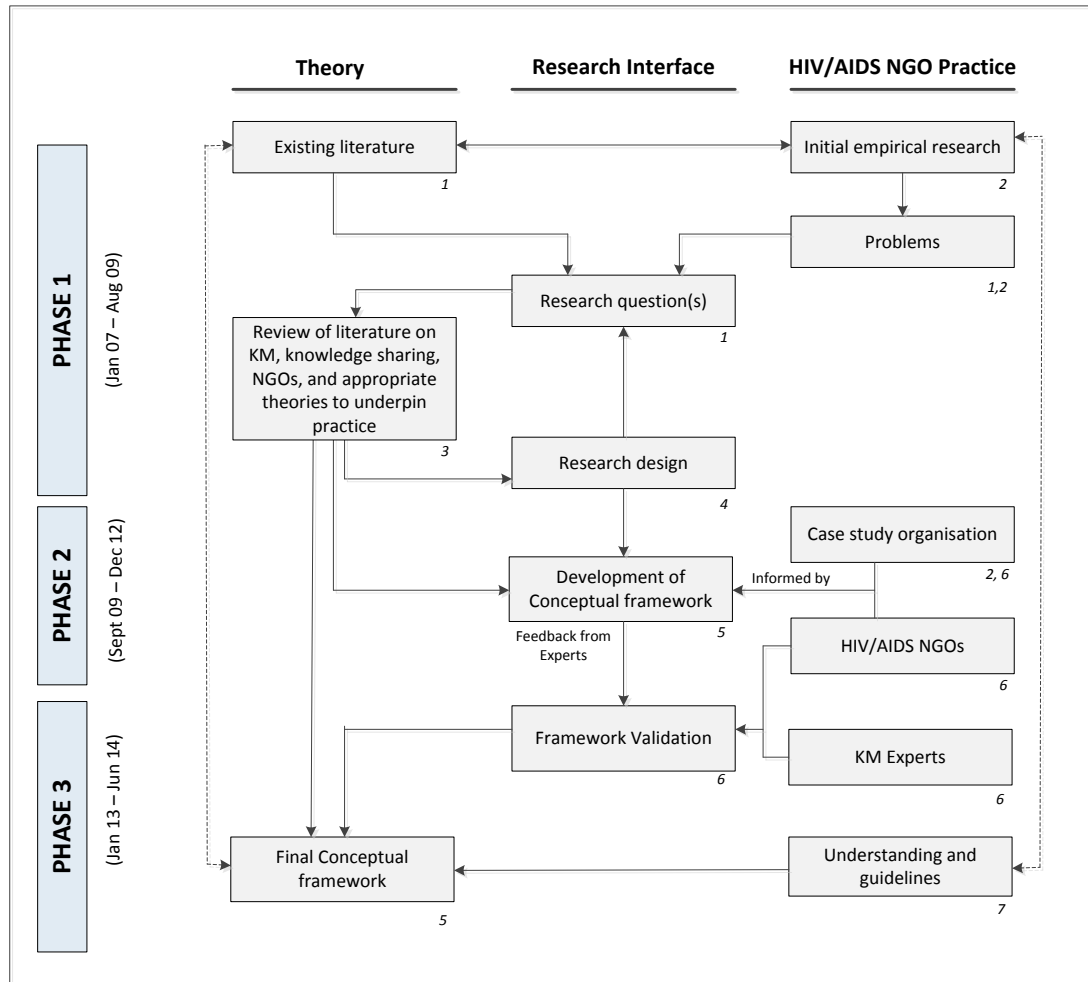
Figure 4.3 Overall research design

(The numbers under the boxes refer to the relevant chapter)

Phase one identified the initial idea, starting with a preliminary research of the chosen area. Combining the initial data collection and literature review provided clarification of the wider issues and led to the research questions and subsequently the aim and objectives of this study. This phase includes constructive research at The AIDS Foundation of South Africa (AFSA). An interview was held with McCord Hospital in Durban, South Africa in August 2008 to find clarification of the wider issues involved in the areas of knowledge sharing amongst and within HIV/AIDS NGOs in South Africa. This led to further clarification of the problems encountered with the sharing of knowledge in HIV/AIDS NGOs in South Africa. The techniques used involved questionnaires, interviews, collaboration and a review of texts and journals.

Preliminary objectives and the research question(s) were then designed. During this stage of the research, the researcher presented her initial findings at two international conferences, the first being the Portland International Center for Management of Engineering and Technology (PICMET) conference held in Cape Town, South Africa in August 2008 and the other at the Operational Research (OR) Society conference in Edinburgh in September 2008. Further critique was also received from a meeting with an international professor who visited Coventry University in September 2008.

This stage also included a literature review on knowledge management, knowledge sharing and a review of the management (non-clinical) literature in the areas of HIV/AIDS NGOs in South Africa that raised issues for consideration in a potential knowledge sharing framework. The summary background of the literature together with initial discussion at AFSA helped to clarify the context in which the investigation was undertaken and raised issues to consider in a potential knowledge sharing framework.

Before starting with the primary research, the study focused on defining and framing the research question. This was initiated by conducting a intensive review of the literature on the area of interest. A literature review is defined as "the selection of available documents, both published and unpublished, on the topic, which contains information, ideas, data and evidence written from a particular standpoint to fulfil certain aims or express certain views on the nature of the topic and how it is to be investigated, and the effective evaluation of these documents in relation to the research being proposed" (Hart, 2001). The aim of the literature review is to "identify, organise and distil the topics, theories and concepts associated with the existing literature within a particular field of interest in order to support the identification of a specific research question" (Rowley and Slack, 2004). The review of the existing literature should include a variety of sources including scholarly articles, books, case studies, research projects, dissertations, government documents, conference proceedings, media releases, databases, library catalogues and electronic sources and other sources relevant to the topic area. The literature review should not only consist of a review of the content of the literature but also a review of the methodologies and technologies used and the current approaches in an attempt to identify any gaps that may appear.

Initially, a researcher may read quite broadly in an ad hoc manner in order to develop an understanding of the area of interest but eventually a researcher will begin to focus their attentions on specific topics within the area. Choosing appropriate keywords or search terms is absolutely critical to the process (Rowley and Slack, 2004)). These search terms are normally based upon words, phrases and concepts that surround the central themes of a research area. A mind map may even be used to assist in the development of these words and phrases. The search terms that were used to define this piece of research began with terms such as "knowledge", "knowledge management", "knowledge sharing", "HIV/AIDS NGOs", "knowledge sharing frameworks". Once these terms identified appropriate literature more specific terms were then used to narrow the searches. There was a variety of different sources used to identify appropriate literature including library searches, electronic journals and other electronic sources.

The combination of practice (initial data collection) and literature review provided clarification of the wider issues and established the need for a knowledge sharing framework for HIV/AIDS NGOs in South Africa.

Phase two was the formulation of the conceptual framework, undertaken through an iterative cycle of development, critique and improvement. This phase of the methodology took the criteria and dimensions identified during the previous phase and placed them into a robust framework for the evaluation of such a system. The role of the development phase was to construct a model to house these dimensions and criteria and to include the measurements, or metrics, that would be the most appropriate to calculate these elements.

A visit to AFSA in Durban, South Africa took place in August 2011 where further interviews took place. Minutes of this meeting can be found in the appendices of this thesis.

AFSA also provided feedback to the first draft of the knowledge sharing framework. Senior Management of three HIV/AIDS NGOs in South Africa also provided feedback

and their experiences on the concepts identified in the initial knowledge sharing framework. The outcomes of both of these are discussed in chapter 5.

Phase three involved validating through empirical work, critical review and analysis of the 'final' framework produced. This was provided by senior members of HIV/AIDS NGOs in South Africa as well as feedback from internationally recognised knowledge management experts. This is discussed in more detail in chapter 6. Table 4.1 illustrate a timeline of when the various activities were undertaken.

Table 4.1 Time frame of events

Date	Event and Purpose	Phase	Chapter
August 2008	AFSA - Questionnaire to establish current practices of information sharing and the management of such sharing	1	3
August 2008	Sinikitemba Clinic, McCord Hospital - Interview - to determine scale of the HIV problem	1	3
Aug 2009 – Jan 13	Framework Development	2	5
August 2011	AFSA - Interview to establish the technical, motivation, communication and power dynamics within the NGO	2	3
Jan 2013 – March 2013	AFSA – Comments on development of framework	2	5, 6
May 2013 – Sept 2013	Framework Evaluation by KM and HIV/AIDS experts	3	6
October 2013	Final Framework	3	5

Triangulation

The process of triangulation was used to ensure the validity and reliability of the research. Saunders et al. (2011) discuss the importance of triangulating multiple sources of data. It is particularly useful when using the multi-method approach i.e. a combination of quantitative and qualitative as was the case in this investigation.

Denzin (2011) identifies four forms of triangulation:

- Data triangulation, collecting data from a variety of sources

- Investigator triangulation, the use of more than one researcher to interpret the same information

- Theoretical triangulation, using different theoretical perspectives to interpret the same data

- Methodological triangulation, the use of more than one method to gather data.

This investigation used data and methodological triangulation. Data triangulation involved literature from several sources as well as data gathered and evaluators' feedback. Method triangulation involved interviews, surveys and observations to collect data and were used in the development and evaluation of the conceptual framework.

4.6 Summary of the research methodology chapter

This chapter described the methodological characteristics of this research. This research is qualitative in nature and based on the interpretive tradition. Whereas the final methodological framework is presented in chapter 5, this chapter discusses the methodological implications of the three theoretical domains underlying the knowledge sharing framework. Finally it was explained that this research gives in rather well to the quality criteria of interpretive research.

CHAPTER 5: DEVELOPMENT OF THE FRAMEWORK

The research presents a framework that has been developed to help understand the barriers to knowledge sharing within HIV/AIDS NGOs in South Africa. This chapter discusses the development of this framework that has emerged from the research discussed in the previous chapters. This framework has been developed in an attempt to overcome some of the main limitations of existing techniques for knowledge sharing as identified in the relevant literature.

This new framework is supported by theory and exposure to critique, offering improvements over the frameworks considered in the literature.

5.1   Fundamentals of the framework

Drawing together the learning and information gathered to this point, this chapter focuses on the actual development of the conceptual framework.

This analytical framework, developed from theory and practice, addresses:

- how people in the HIV/AIDS NGO actually share knowledge
- what processes they implement
- how they work
- which factors can improve these processes.

A conceptual framework can be used to explain, "either graphically or in narrative form, the main things to be studied – the key factors, construct or variables – and the presumed relationships among them" (Miles and Hubermanm, 2013). The major focus

of this research is the exploration of knowledge sharing, the way that knowledge is shared in the South African HIV/AIDS NGO sector and the support needed for effective and efficient knowledge sharing to take place. In this research, the conceptual framework is used to draw together the researcher's thoughts about the process of knowledge sharing, and to connect these to the key themes of interest from the literature review and from the empirical research and evaluation that took place at the latter stage of this research.

The conceptual framework was developed following an extensive review of the existing literature. It enabled the researcher to encapsulate the ideas and concepts gained from the literature review, and distil these into a coherent framework to help guide the research. The framework presents the core components of a HIV/AIDS NGO in terms of its internal environment, the micro environment and the macro environments and the essential NGO practices by which the HIV/AIDS NGO can measure their current development and identify their knowledge sharing needs. Essential practices and core competences define what capacity needs to be built or reinforced. The framework also includes indicators and gives examples of how to measure progress against the standards.

The framework consists of 3 parts:

i. Part A describes the knowledge sharing components needed in a HIV/AIDS NGO for effective intra-organisational knowledge sharing.

ii. Part B further expands each component by identifying NGO elements required to contribute to the effectiveness of knowledge sharing and suggests possible indicators which can be used to measure these components against.

iii. Part C describes a method for implementation based on a knowledge sharing process. This knowledge sharing process is then mapped onto the HIV/AIDS environment to show in which environment each of the phases resides. For each phase and subsequent steps, components and elements are identified and mapped back onto the knowledge sharing process to show the necessary support that should already be in place in the NGO to support the step.

In order to address these issues, this chapter is presented in three main sections:

- Section 5.2 discusses the development of the framework. It starts by capturing the HIV/AIDS NGO environment before identifying core components, elements and indicators for successful intra-organisational knowledge sharing. This section also investigates the knowledge sharing infrastructure starting with the environment in which a HIV/AIDS NGO in South Africa operates.

- Section 5.3 discusses how the framework was revised based on the critique and feedback it received from the evaluators. A new and final framework is then presented.

- Section 5.4 discusses a possible method for implementation based on what is identified as the knowledge sharing process.

The conceptual framework encapsulates the main concepts drawn from the literature and will focus on 3 key areas (see Figure 5.1):

i. The knowledge sharing components needed in a HIV/AIDS NGO for effective intra-organisational knowledge sharing.

ii. The development of a knowledge sharing infrastructure that identifies the key components and indicators in HIV/AIDS to be present in the NGO for effective knowledge sharing to take place

iii. A method for implementation based on a knowledge sharing process. It will also show a mapping onto the HIV/AIDS environment. For each phase and subsequent steps, components and elements are identified and mapped back onto the knowledge sharing process to show the necessary support that should already be in place in the NGO to support the step.
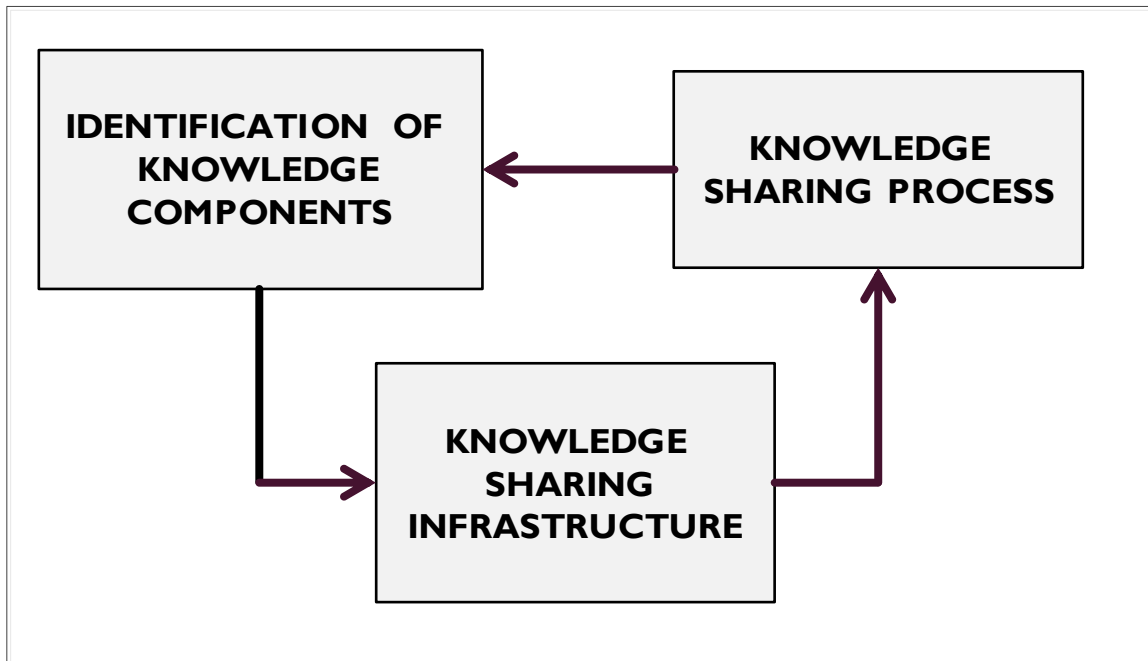
Figure 5.1 Conceptual Knowledge Sharing Framework

5.2   A framework for knowledge sharing: initial version

Drawing together the learning and information gathered to this point, this section focuses on the actual development of the conceptual framework. The key components for consideration for knowledge sharing that has emerged from the research so far are presented in Table 2.6.

Using this table as a starting point for the development of the framework, the following sections will explain how the knowledge sharing framework was developed.

5.2.1   *The HIV/AIDS NGO Environment*

As discussed in Chapter 2, there are various factors that influence the way knowledge is shared within and amongst a typical HIV/AIDS NGO and other organisations. These occur in three discrete environments:

i.   *Internal Environment* refers to the physical opportunity for formal and informal interaction to support explicit and tacit knowledge sharing. The physical opportunity to share tacit as well as explicit knowledge within the NGO is a key factor to knowledge sharing and the right type of environment to facilitate this is an advantage. For example, a NGO that does not have the physical opportunity to exchange ideas, concepts, experience and knowledge in an informal way may not be as effective as a NGO that does. Factors included in this environment are the structure of the NGO, how communication occurs in the NGO, how leadership is demonstrated and how systems are managed within the NGO. Technology and management systems are considered in this framework as another aspect of this physical facilitative opportunity.

Knowledge sharing factors which stem from this environment refer to the physical opportunity for formal and informal interaction to support explicit and tacit knowledge sharing within the NGO. The physical opportunity to share tacit as well as explicit knowledge within the NGO is a key factor to knowledge sharing and the right type of environment to facilitate this is an advantage. For example, a NGO that does not have the physical opportunity to exchange ideas, concepts, experience and knowledge in an informal way may not be as effective as another NGO that does. Factors included in this environment are the structure of the NGO, how communication occurs in the NGO, how leadership is demonstrated and how systems are managed within the NGO.

ii. *Micro Environment* refers to factors in the NGO's immediate area of operations that affect its performance. The specific factors within this domain which have an influence on how knowledge is shared within the NGO are the external relations and the board of governors.

Knowledge sharing factors in this environment refer to factors in the NGO's immediate area of operations that affect its performance. The specific factors within this domain, which have an influence on how knowledge is shared within the NGO, are the external relations and the board of governors. Many NGOs receive development funds or participate in development projects and

programmes. Participation in this system brings several potential organisational consequences for NGOs. The researcher argues that the board of governors should be placed in the micro environment as they are in the NGO's immediate area of operations and has an effect on the NGOs performance.

iii. *Macro Environment* refers to the major external and uncontrollable factors that influences the NGO's decision making and affect the NGO's performance and strategies. The specific factors which have an influence on how knowledge is shared within the NGO are political and legal factors. Lewis (2006) discusses how NGOs are becoming more internally complex in cultural terms requiring more attention to be paid to the "management of diversity".

Knowledge sharing factors in this environment refer to the major external and uncontrollable factors that influence the NGO's decision making and affect the NGO's performance and strategies. Lewis (2006) discusses how NGOs are becoming more internally complex in cultural terms requiring more attention to be paid to the 'management' of diversity. Economic and social changes, related with 'globalisation' are bringing another set of management challenges.

Another popular approach is to look at knowledge management in terms of people, processes and technology (Alavi and Leidner, 2001; Argote et al., 2003; Babcock, 2004; Davenport and Pruzak, 2000). As identified in chapter 2, knowledge sharing is a process of knowledge management and as such the researcher proposes that knowledge sharing should also be looked at in terms of people, processes and technology.

- *People*: Getting an organisation's culture (including values and behaviours) "right" for knowledge sharing is usually the most important and yet often the most difficult challenge. Management plays a huge role in creating and maintaining this culture which often starts with the creation of a vision statement and is further strengthened by the organisational structure of the HIV/AIDS NGO. In turn, human resources will further support or hinder this knowledge sharing culture by the policies, rewards and incentives it creates to enhance

organisational learning and as such enhance knowledge sharing. The culture of the HIV/AIDS NGO needs to support on-going learning and knowledge sharing. People need to be motivated and rewarded for creating, sharing and using knowledge. A culture of openness, mutual respect and support need to exist which does not include a hierarchical structure where "knowledge is power" and people are reluctant to share knowledge. People should not be under constant pressure to act, but time needs to be put in place for people to seek, share and reflect on knowledge-seeking. They need to feel inspire to innovate and learn from mistakes and not be subjected to a "blame and shame" culture.

- *Processes*: In order to improve knowledge sharing, NGOs need to ensure that there are systems and processes in place to support the NGO in sharing knowledge. These include the way the NGO is structured and supported by their administration and finance policies, or the way the degree of quality is maintained or the processes involved with change is maintained to ensure that the knowledge is share in the NGO.

- *Technology*: A common misconception is that knowledge sharing is primarily about technology. Technology is often a vital enabler of knowledge sharing – it can assist in connecting people with information, and people with each other, but it is not the solution. It is crucial that any technology used "fits" the NGO's people and processes – otherwise it will simply not work.

These three components are crucial for successful knowledge sharing to occur. If one component is missing, then knowledge sharing will not be successful. However, one component is viewed as being more important than the others – people. A NGO's primary focus should be on the development of a knowledge-friendly culture and knowledge-friendly behaviours among its people, which should be supported by the appropriate processes, and which may be enabled through technology (See Figure 5.2).
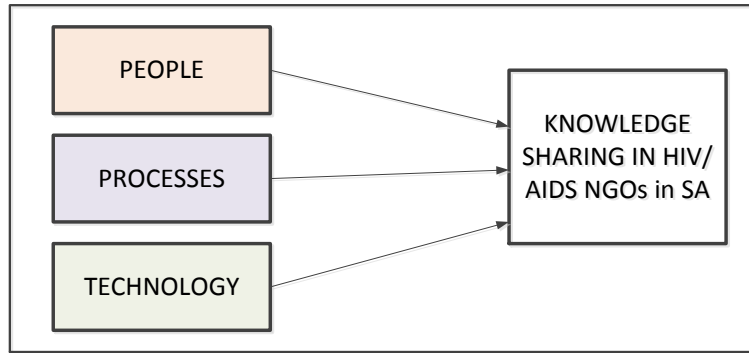
Figure 5.2 Elements of knowledge sharing in HIV/AIDS NGOs

5.2.2   Identification of core components

Components are the set of core features that need to be present and functioning together effectively in order for effective knowledge sharing to take place.   The primary functions constitute the core components that are necessary for effective knowledge sharing to occur.

The following areas were identified as being core components of the HIV/AIDS NGO:

i.   The ***Governing Structure*** refers to the broad purpose and vision of the HIV/AIDS NGO and how the employees in the NGO are organised and how they relate to one another. This potentially decides the NGO's ability to:

- learn from its environment (patients, community, other NGOs) in order to perform core functions related to the prevention, treatment and care of people affected and infected by HIV/AIDS in South Africa
- solve problems that the NGO may encounter, define and achieve its objectives in relation to the community it serves
- understand and deal with the development needs of the HIV/AIDS patients and the organisation.

ii.   ***Human Resources*** within the NGO, looks after the needs and development of its employees: fulltime, part-time and volunteers. This is crucial, as it is within this remit, that staff within the NGO, are motivated and satisfied to perform its

core functions related to the various phases of the HIV/AIDS life cycle. If the staff's developments needs are met, they are more motivated to respond to the vulnerable people within their community affected and infected by HIV/AIDS.

iii. *Financial Resources and Administration* refers to how the financial needs are met within the HIV/AIDS NGO. Although not directly related to how knowledge is shared and how people learn, it is still crucial as it impacts on all other components within the knowledge sharing process.

iv. *Communication*, which refers to how information and knowledge is shared about and between patients, the community, other HIV/AIDS NGOs and even in the NGO itself, is a crucial component of the NGO. It not only identifies the needs of the various stakeholders but also encompasses ways in which the information and knowledge is shared (verbally, non-verbally or via other mechanisms), to solve the issues identified, which the stakeholder may encounter.

v. The **leadership** of HIV/AIDS NGOs play a vital role in local development. These leaders should be motivated and dynamic individuals who work closely with the local community, understand their needs, and has an understanding of how best to mobilise local resources in order to deal with the development needs of the HIV/AIDS patients and the organisation in the broad context of South Africa.

vi. The NGO's *management systems* refer to the processes, procedures and technologies used to ensure that the NGO can fulfil all tasks required to achieve its objectives relating to the HIV/AIDS community that it serves, as well as understanding and dealing with the development needs of not only the NGO itself but also the environment in which it operates.

vii. A HIV/AIDS NGO cannot function in isolation. It needs *external relations* to ensure that the community that it serves and in particular the HIV/AIDS patient,

have access to all the services needed, in relation to the treatment of HIV/AIDS in South Africa.

viii.   The ***political and legal environment*** in which the HIV/AIDS NGO operates has a tremendous impact on the way the NGO operates within its environment (patients, community, other NGOs) in order to perform the core functions related to the treatment of HIV/AIDS, especially in South Africa.

ix.   The ***social environment*** in which the HIV/AIDS NGO operates influences the way in which the NGO operates. The NGO need to socially interact with the community it serves.

The key component areas that have emerged from the research in the foregoing have been clustered and structured in Figure 5.3. The arrows in the framework highlight the horizontal and vertical interaction of each component, all of which encompass the whole. The framework is not generally intended to be sequential, but for illustrative convenience has been presented in this way.
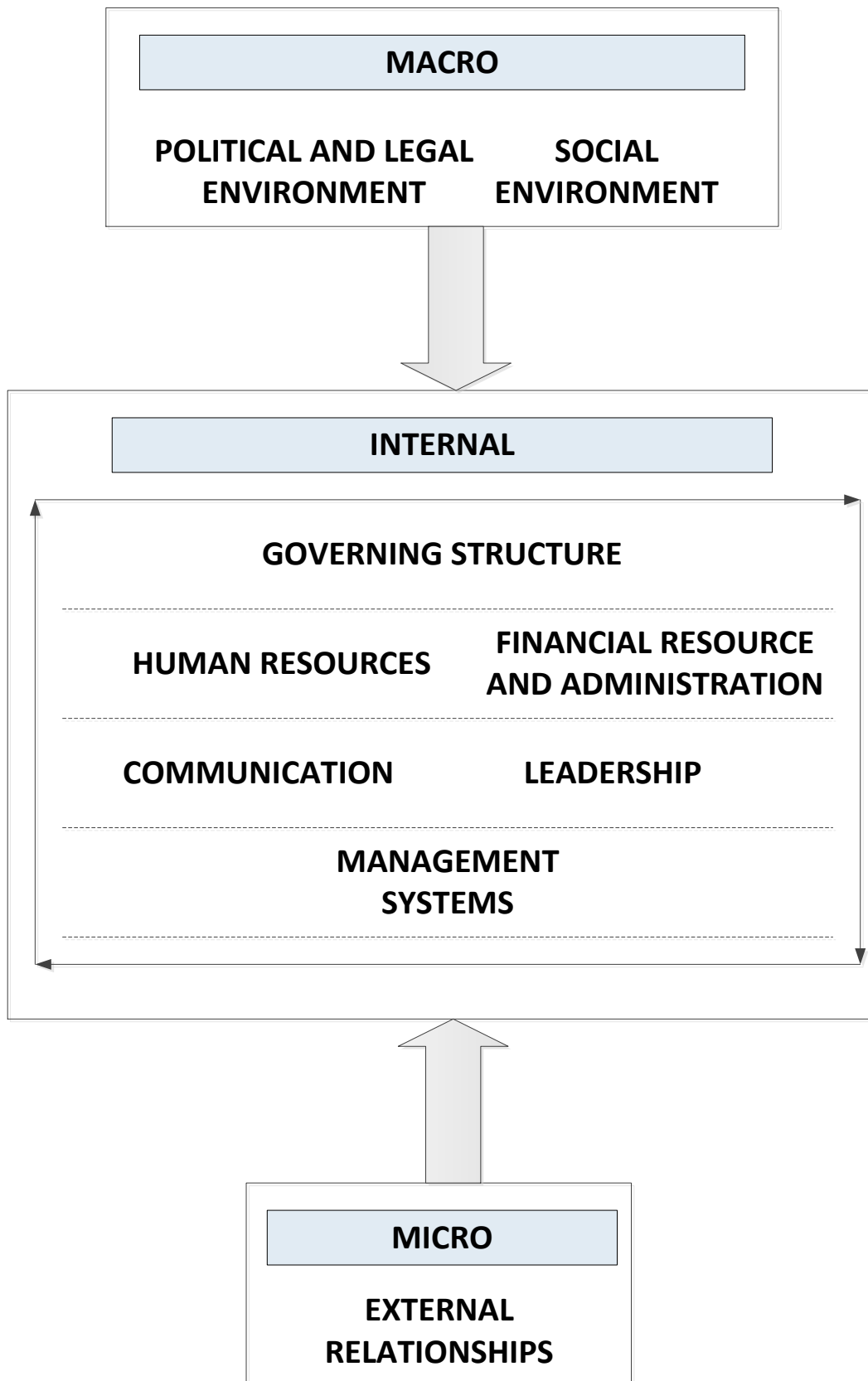
Figure 5.3 Knowledge Sharing Framework (Components)

In chapter 2, the factors which influence knowledge sharing in HIV/AIDS NGOs were identified and these were summarised in Table 2.6. The researcher undertook an analysis of the factors that influence knowledge sharing in HIV/AIDS NGOs, and added an extra column to the left, trying to group according to the core components of the HIV/AIDS NGO. The researcher removed the column which referenced where it was discussed and removed any duplicate factors. The results are shown in Table 5.1.

Table 5.1 Internal knowledge sharing factors - grouped by element

Component	Factors that influence knowledge sharing	Environment
Governing structure	Management	Internal
Governing structure	Roles and internal structures	Internal
Governing structure	Organisational aims and organisational structures	Internal
Governing structure	Organisational chart	Internal
Governing structure	Organisational structure	Internal
Governing structure	Mission and vision statement	Internal
Governing structure	Project plan	Internal
Human resources	Managing or involving volunteers	Internal
Human resources	Training	Internal
Human resources	Performance improvement (quality)	Internal
Human resources	Structured work teams	Internal
Human resources	Training programmes	Internal
Human resources	Incentives and rewards	Internal
Human resources	Motivation	Internal
Human resources	Personal satisfaction	Internal
Human resources	Human resource management	Internal
Human resources	Organisational commitment	Internal
Financial resources and administration	Financial management	Internal
Financial resources and administration	Funding environment	Internal
Financial resources and administration	Financial responsibility	Internal
Financial resources and administration	Financial reporting	Internal
Communication	Knowledge Sharing Opportunities	Internal
Communication	Knowledge sharing behaviours	Internal
Communication	Social environment/interaction	Internal
Leadership	Trust	Internal
Leadership	Power	Internal
Leadership	Leadership	Internal
Leadership	Organisational culture	Internal
Leadership	Leadership	Internal
Management systems	Communication	Internal
Management systems	Technology	Internal
External relationships	Relationships with external entities	Micro
External relationships	Governing boards	Micro
Political and Legal Environment	Government climate	Macro
Political and Legal Environment	Political Structures	Macro
Political and Legal Environment	Economic climate	Macro
Political and Legal Environment	Government policies	Macro
Social Environment	Culture	Macro

The components which have a direct impact on the internal environment, the main focus of this thesis, are illustrated in Figure 5.4. Governing Structure, Human Resources, Communication and Leadership all deal with the people aspect of knowledge sharing. Financial Resources and Administration and Management Systems need to be in place to support people in the organisation which are enabled by technology.
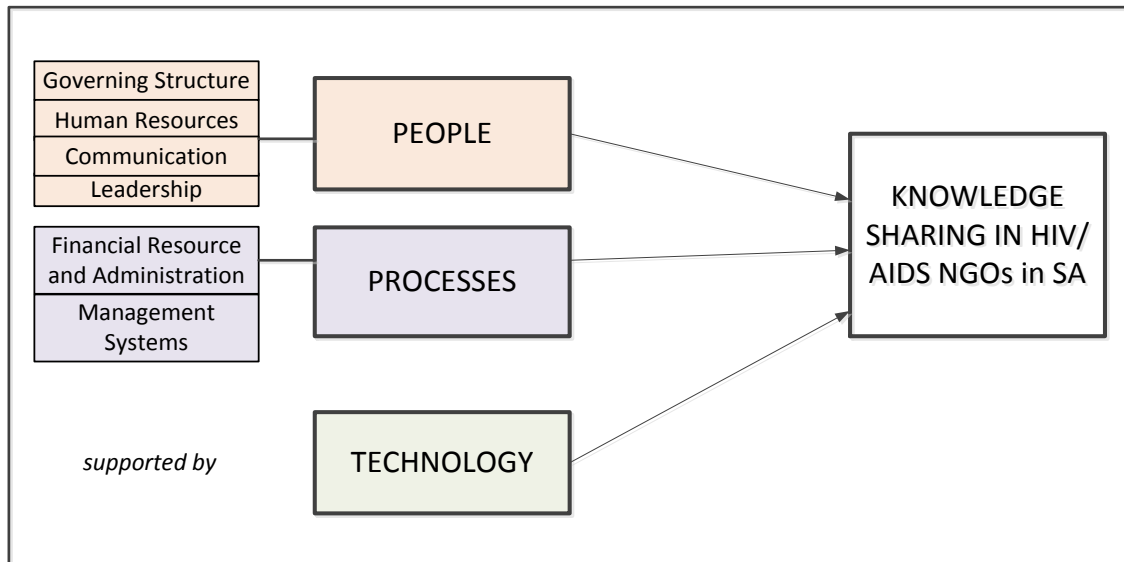
Figure 5.4 Knowledge sharing in HIV/AIDS NGOs (Internal Environment)

5.2.3 *Identification of essential HIV/AIDs NGO elements*

Elements are the essential processes and activities that NGOs require to demonstrate capacity in any of the core components. For these practices to be sound, they must be supported and encouraged through policies, structures, systems and actions. This corresponds to what the researcher has identified as 'Factors that influences knowledge sharing' and as such has renamed this to Elements. To increase a NGOs efficiency and effectiveness, all of the elements described in this framework are essential. Without a deep understanding of these elements and how they interact, the effectiveness and sustainability of knowledge sharing is at risk. Core competences define what capacity needs to be built or reinforced.

The Elements were renamed to provide a more meaningful name than the "knowledge sharing factors" identified earlier in this chapter. The core components and subsequent elements were also numbered and core competences for each element were identified.

The following sections will discuss each component and the relevant elements identified within each component.

Component 1: Governing Structure

This component relates to the broad purpose and vision of the HIV/AIDS NGO and how the employees in the NGO are organised and how they relate to one another. From literature various factors were identified which falls within this category (see Table 5.2). Justification for the inclusion of these factors can be found in chapter 2.

Table 5.2 Component: Governing Structure

Component	Factors that influence knowledge sharing
Governing Structure	Management
Governing Structure	Roles and internal structures
Governing Structure	Organisational aims and organisational structures
Governing Structure	Organisational chart
Governing Structure	Organisational structure
Governing Structure	Mission and vision statement
Governing Structure	Project plan

"Management", "roles and internal structures", "organisational aims and organisational structures", "organisational chart" and "organisational structure" are grouped together to form the element *organisational chart* which defines the roles and responsibilities of the NGO. These roles and responsibilities are defined in the policies and procedures manual and used as the basis for assigning work.

The *mission and vision statement*, which was initially defined, when the HIV/AIDS NGO was established and subsequently reviewed, on an annual basis, should be visible to all staff.

An updated *project plan* should exist, for each project, staff are working on, as well as a combined project plan showing all projects staff are working on and also the location of each member of staff. These should be kept electronically and made available for all staff working in the HIV/AIDS NGO.

The key elements which encompasses all, have been summarised as:

- mission and vision

- organisational chart

- project plan

Table 5.3 summarises the *governing structure* component with its essential HIV/AIDS NGO elements and core competences.

Table 5.3 Knowledge Sharing Infrastructure – Governing Structure

Core Components	Essential HIV/AIDS NGO Elements	Core Competences
1. Governing Structure	1.1 Mission and Vision Statement	The mission and vision statements are available in writing and communicated to all staff.
	1.2 An organisational chart which shows staff roles and responsibilities	The NGO has a structure which is well-designed and key functions, roles and responsibilities of the NGO are clearly defined.
		Roles and responsibilities are defined in the policies and procedures manual and used as the basis for assigning work.
	1.3 A project plan which shows where and when staff will be working	A project plan exists which shows the projects that staff are working on as well as a combined project plan showing all projects staff are working on and also the location of the staff.

Component 2: Human Resources

Human Resources within the HIV/AIDS NGO, refers to the needs and development of its employees, both fulltime employees and volunteers. From literature various factors were identified which falls within this category (see Table 5.4). Justification for the inclusion of these factors can be found in chapter 2.

Table 5.4 Component: Human Resources

Component	Factors that influence knowledge sharing
Human Resources	Managing or involving volunteers
Human Resources	Training
Human Resources	Performance improvement (Quality)
Human Resources	Structured work teams
Human Resources	Training programmes
Human Resources	Incentives and Rewards
Human Resources	Motivation
Human Resources	Personal satisfaction
Human Resources	Human resource management
Human Resources	Organisational commitment

Although not clearly stated in the literature, a *human resources policy* need to exist in the HIV/AIDS NGO to support administrative personnel functions, performance management, employee relations and resource planning. Each HIV/AIDS NGO has a different set of organisational culture, and so develops an individual set of human resource policies. The establishment of policies help the HIV/AIDS NGO demonstrate, both internally and externally, that it meets requirements for diversity, ethics and training as well as its commitments in relation to regulation and corporate governance of its employees. The establishment of a human resource policy sets out obligations, standards of behaviour and document disciplinary procedures, is now the standard approach to meeting these obligations. Human resources policy can also be very effective at supporting and building the desired organisational culture.

"Training", "performance improvement", "structured work teams" and "training programmes", are grouped to form the element *staff performance, promotion and development*. The staff's performance should be evaluated annually and development provided where needed. Procedures for complaints and performance issues should be available to staff members and volunteers. All employees should have a fair opportunity for promotion.

Motivation, incentives and rewards, personal satisfaction and organisational commitment are grouped to form *Personal satisfaction and commitment*.

Managing or involving volunteers is renamed *volunteer management.* The HIV/AIDS NGO should encourage the contribution of volunteers and have a recruitment and training plan for new volunteers. The skills of volunteers should be adequately utilised.

The key elements which encompasses all in this table have been summarised as:

- human resources policy
- staff performance, promotion and development
- personal satisfaction and commitment
- volunteer management

Table 5.5 summarises the *human resources* component with its essential HIV/AIDS NGO elements and core competences.

Table 5.5 Knowledge Sharing Infrastructure – Human Resources

Core Components	Essential HIV/AIDS NGO Elements	Core Competences
2. Human Resources	2.1 Human resources policy	The NGO has a human resources policy, a training and development plan, staffing policies and regulations, which respects national labour legislation.
	2.2 Staff performance, promotion and development	Staff's performance is annually evaluated and procedures for complaints and performance problems are available and known by all staff members and volunteers.
		All employees have a fair opportunity for promotion.
		The NGO actively supports skill development for all of its staff and volunteers.
	2.3 Personal satisfaction and commitment	Staff and volunteers are satisfied with salaries, benefits and other services to staff, policy and administrative issues, leadership, recognition of individuals and teams, empowerment and equal opportunities policies and their implementation, training opportunities and career development
		Staff are motivated.
	2.4 Volunteer management	NGO encourages the contribution of volunteers and has recruitment and training plan for new volunteers.
		The skills of volunteers are adequately utilised.

Component 3: Financial Resources and Administration

Financial Resources and Administration refers to how the financial needs are met within the HIV/AIDS NGO. From literature various factors which falls within this category were identified (see Table 5.6). Justification for the inclusion of these factors can be found in chapter 2.

Table 5.6 Component: Financial Resources and Administration

Component	Factors that influence knowledge sharing
Financial Resources And Administration	Financial management
Financial Resources And Administration	Funding environment
Financial Resources And Administration	Financial responsibility
Financial Resources And Administration	Financial reporting

Financial management ensures that financial targets and budgets are met and that there is no deficiency or surplus for the month. The financial resources unit should be led by a person with adequate skills for this purpose.

Funding environment ensures that the HIV/AIDS NGO has access to resources and funding (allocations) provided by the government authorities, funding agencies and civil society stakeholders. The organisation should be granted financial and fiscal benefits that are relevant to its legal status.

Financial responsibility and financial reporting ensures that regular internal and external financial reporting is carried out.

The key elements which encompasses all in this table are:
- financial management
- funding environment
- financial reporting and accountability

Table 5.7 summarises the *Financial Resources and Administration* component with its essential HIV/AIDS NGO elements and core competences.

Table 5.7 Knowledge Sharing Infrastructure – Financial Resources and Administration

Core Components	Essential HIV/AIDS NGO Elements	Core Competences
3. Financial Resource and Administration	3.1 Financial management and accounting	Financial targets and budgets are met (no deficiency or surplus).
		The financial resources unit is led by a person with the adequate skills for the purpose.
	3.2 Funding environment	The organisation has access to resources and funding (allocations) provided by the government authorities, funding agencies and civil society stakeholders.
		The organisation is granted financial and fiscal benefits that are relevant to its legal status.
	3.3 Financial reporting and accountability	Regular internal and external financial reporting is carried out (eg. monthly, quarterly, annually, as appropriate).

Component 4: Communication

Communication, which refers to how information and knowledge is shared between patients, the community, other HIV NGOs and even in the NGO itself, is a crucial component of the NGO. From literature various factors were identified which falls within this category (see Table 5.8).   Justification for the inclusion of these factors can be found in chapter 2.

Table 5.8 Component: Communication

Component	Factors that influence knowledge sharing
Communication	Knowledge sharing opportunities
Communication	Knowledge sharing behaviours
Communication	Social environment/interaction
Communication	Knowledge sharing opportunities

"Knowledge Sharing Opportunities", "knowledge sharing behaviours" and the "social environment/interaction" are all grouped together to form the element *Internal communication mechanism to share necessary information*. The HIV/AIDS NGO

should have clear communication mechanisms, understood by all staff, to share information including changes in procedures or regulations and other important matters across organisational units and among staff at different levels.

The key element which encompasses all in this table is:

- Internal communication mechanism to share necessary information

Table 5.9 summarises the *Communication* component with its essential HIV/AIDS NGO elements and core competences.

Table 5.9 Knowledge Sharing Infrastructure – Communication

Core Components	Essential HIV/AIDS NGO Elements	Core Competences
4. Communication	4.1 Internal communication mechanism to share necessary information	The NGO has clear communication mechanisms, understood by all staff, to share information including changes in procedures or regulations and other important matters across organisational units and among staff at different levels.

Component 5: Leadership

The leadership of HIV/AIDS NGOs play a very important role in local development. From literature various factors were identified which falls within this category (see Table 5.10). Justification for the inclusion of these factors can be found in chapter 2.

Table 5.10 Component: Leadership

Component	Factors that influence knowledge sharing
Leadership	Trust
Leadership	Power
Leadership	Leadership
Leadership	Organisational culture

Trust and power are skills that the literature defines under leadership. The literature indicates that these skills need to be present in order to produce an organisation where all practices are transparent and people are accountable for their actions. For example, the NGO must provide a fair and transparent way in which financial information

regarding the NGO is made available to members, beneficiaries and donors. Leaders also look at the way in which resources are mobilised, ensuring that a revenue-generating strategy is followed, balancing diverse sources of revenue to meet current and future needs.

The key elements which encompasses all in this table are:

- transparency and accountability
- resource mobilisation

Table 5.11 summarises the *Leadership* component with its essential HIV/AIDS NGO elements and core competences.

Table 5.11 Knowledge Sharing Infrastructure – Leadership

Core Components	Essential HIV/AIDS NGO Elements	Core Competences
5. Leadership	5.1 Transparency and Accountability	The NGO provides in a fair and transparent way; financial information regarding the NGO is made available to members, beneficiaries and donors.
	5.2 Resource Mobilisation	The NGO follows a revenue-generating strategy, balancing diverse sources of revenue to meet current and future needs.

Component 6: Management Systems

The NGO's management systems refer to the processes, procedures and technologies used to ensure that the NGO can fulfil all tasks required to achieve its objectives relating to the HIV/AIDS community that it serves, as well as understanding and dealing with the development needs of not only the NGO itself but also the environment in which it operates. From literature various factors were identified which falls within this category (see Table 5.12). Justification for the inclusion of these factors can be found in chapter 2.

Table 5.12 Component: Management Systems

Component	Factors that influence knowledge sharing
Management Systems	Communication
Management Systems	Technology

"Communication" and "technology" were renamed to *information technology infrastructure* which refers to IT procedures that are in place and this needs to be communicated to staff.

The researcher used critical reflection to think about other systems that need to be in place for effective knowledge sharing to take place. The HIV/AIDS NGO needs to have a clear knowledge sharing/management and learning strategy that deals with gathering, documenting and packaging best practices and lessons learnt for distribution and use throughout the NGO and with the external environment. The NGO has an environment that fosters effective change and actively supports internal change agents and programs. Data on past and current projects are available, up to date and regularly used for follow-up monitoring, program adjustments, planning and determining progress towards stated targets. The NGO has established a system for assessing and improving the quality of services. The NGO has an efficient supply system that is used to forecast and procure supplies (drugs, equipment, office supplies and consumables) in relation to their demand and use.

The key elements which encompasses all in this table are
- a knowledge sharing/management and learning strategy
- supporting teams that manage change efforts in the NGO
- an information technology infrastructure
- an organisational monitoring and evaluation process
- a quality assurance (QA) system
- an information management system
- a supply chain management system

Table 5.13 summarises the *Management Systems* component with its essential HIV/AIDS NGO elements and core competences.

Table 5.13 Knowledge Sharing Infrastructure – Management Systems

Core Components	Essential HIV/AIDS NGO Elements	Core Competences
6. Management Systems	6.1 A knowledge sharing/management and learning strategy	The NGO has a clear process for gathering, documenting and packaging best practices and lessons learnt for distribution and use throughout the NGO and with the external environment.
	6.2 Supporting teams that manage change efforts in the NGO	The NGO has an environment that fosters effective change and actively supports internal change agents and programs.
	6.3 An information technology infrastructure	IT procedures are in place and communicated to staff
	6.4 An organisational monitoring and evaluation process	Data on past and current projects are available, up to date and regularly used for follow-up monitoring, program adjustments, planning and determining progress towards stated targets.
	6.5 A Quality Assurance (QA) system	The NGO has established a system for assessing and improving the quality of services.
	6.6 An information management system	The NGO has a clear system for collecting data; the plan is used to inform planning and management decisions.
	6.7 A supply management system	The NGO has efficient supply system that is used to forecast and procure supplies (drugs, equipment, office supplies and consumables) in relation to their demand and use.

Component 7: External Relationships

HIV/AIDS NGOs need external relations to ensure that the community that it serves and in particular the HIV/AIDS patient, have access to all the services needed related to the treatment of HIV/AIDS in South Africa. From literature various factors were identified which fall within this category (see Table 5.14). Justification for the inclusion of these factors can be found in chapter 2.

Table 5.14 Component: External Relationships

Component	Factors that influence knowledge sharing
External Relationships	Relationships with external entities
External Relationships	Governing boards

The HIV/AIDS NGO has relationships with various external entities for example partnerships with other NGOs and networks, relationships with the board of governors, with government authorities and with donors. A clearly defined strategy and annual operational plan for policy engagement and advocacy with other HIV/AIDS NGOs, is needed by the NGO. It also needs to have strategic links with external NGOs and has an internal process to share technical expertise and experiences, has applied best practices to its program and shared this information with stakeholders and appropriate staff. The NGO needs to have a clear referral process that is followed and strong linkages with government, private or NGO health or social service providers to ensure that clients requiring HIV and AIDS treatment or health services have access to them. Patients are consistently referred to the right locations when needed and do not encounter problems at referrals sites. The NGO has a board of governors with clear terms of engagement, a code of ethics and regularly functioning board committees for specific areas, such as fundraising, finance, public relations, programmes and services. NGO has information about governmental actors, laws, and policy pertaining to the work that it is involved in. NGO designs programs primarily based on its values and strategic goals, and needs in its sector.

The key elements which encompasses all in this table are:

- partnerships with other NGOs and networks
- relationship with board of governors
- relationship with government authorities
- relationships with donors

Table 5.15 summarises the *External Relationships* component with its essential HIV/AIDS NGO elements and core competences.

Table 5.15 Knowledge Sharing Infrastructure – External Relationships

Core Components	Essential HIV/AIDS NGO Elements	Core Competences
7. External Relationships	7.1 Partnerships with other NGOs and networks	The NGO has a clearly defined strategy and annual operational plan for policy engagement and advocacy with other HIV/AIDS NGOs.
		The NGO has strategic links with external NGOs and has an internal process to share technical expertise and experiences, has applied best practices to its program and shared this information with stakeholders and appropriate staff.
		The NGO has a clear referral process and strong links with government, private or NGO health or social service providers to ensure that clients requiring HIV and AIDS treatment or health services have access to them and are followed. Clients are consistently referred to the right locations when needed and do not encounter problems at referrals sites.
	7.2 Relationship with board of governors	The NGO has a board of governors with clear terms of engagement, a code of ethics and regularly functioning board committees for specific areas, such as fundraising, finance, public relations, programmes and services.
	7.3 Relationship with government authorities	NGO has information about governmental actors, laws, and policy pertaining to the work that it is involved in.
	7.4 Relationships with donors	NGO designs programs primarily based on its values and strategic goals, and needs in its sector.

Component 8: Political and Legal Environment

The political and legal environment in which the HIV/AIDS NGO operates has a tremendous impact on the way the NGO operates within its environment (patients, community, other NGOs) in order to perform the core functions related to the treatment of HIV/AIDS especially in South Africa. From literature various factors were identified which fall within this category (see Table 5.16). Justification for the inclusion of these factors can be found in chapter 2.

Table 5.16 Component: Political and Legal Environment

Component	Factors that influence knowledge sharing
Political and Legal Environment	Government climate
Political and Legal Environment	Political Structures
Political and Legal Environment	Economic climate
Political and Legal Environment	Government policies

Government climate, political structures, economic climate and government policies are all grouped together to form the component *Laws and policies*. The NGO is up to date with the relevant policies related to HIV/AIDS at provincial, national and international level. The NGO respects laws, policies and regulations that are applicable to NGOs, including submission of yearly financial report and staff registration. Together with this element, procedures are in place to ensure that the NGO is aware of its legal status with regards to all issues concerned.

The key elements which encompasses all in this table are:

- laws and policies
- legal restrictions

Table 5.17 summarises the *Political and Legal Environment* component with its essential HIV/AIDS NGO elements and core competences.

Table 5.17 Knowledge Sharing Infrastructure – Political and Legal Environment

Core Components	Essential HIV/AIDS NGO Practices	Core Competences (NGO, national or international)
8. Political and Legal Environment	8.1 Laws and Policies	The NGO is up to date with the relevant policies related to HIV/AIDS at provincial, national and international level.
		The NGO respects laws, policies and regulations that are applicable to NGOs, including submission of yearly financial report, and staff registration etc.
	8.2 Legal restrictions	Procedures are in place to ensure that the NGO is aware of its legal status with regards to all issues concerned.

Component 9: Social Environment

The social environment in which the HIV/AIDS NGO operates has a tremendous impact on the way the NGO operates within its environment (patients, community, other NGOs) in order to perform the core functions related to the treatment of HIV/AIDS especially in South Africa. From literature various factors were identified which falls within this category (see Table 5.18). Justification for the inclusion of these factors can be found in chapter 2.

Table 5.18 Component: Social Environment

Component	Factors that influence knowledge sharing
Social Environment	Culture

An understanding of the cultural issues which impacts on the specific environment in which the NGO operates.

The key elements which encompasses all in this table is:

- Culture

Table 5.19 summarises the *Social Environment* component with its essential HIV/AIDS NGO elements and core competences.

Table 5.19 Knowledge Sharing Infrastructure – Social Environment

Core Components	Essential HIV/AIDS NGO Practices	Core Competences (NGO, national or international)
9. Social Environment	9.1. Culture	An understanding of the cultural issues which impacts on the specific environment in which the NGO operates.

The key areas for consideration that have emerged from the research in the foregoing have been clustered and structured in Figure 5.3 and within each component identified, a further cascading of Elements are illustrated in Figure 5.5. The overall framework in Figure 5.5 does not fully reflect the dynamic interaction that knowledge sharing has within a HIV/AIDS NGO; it does however offer some indication at this stage of a complex system, with the main emphasis on the human element.

GOVERNING STRUCTURE

Mission and Vision
Statement
Organisational Chart
Project Plan

HUMAN RESOURCES

Human Resources Policy
Staff Performance,
Promotion and
Development
Personal Satisfaction and
Commitment
Volunteer Management

**FINANCIAL RESOURCE
AND ADMINISTRATION**

Financial Management and
Accounting
Funding Environment
Financial Reporting and
Accountability

COMMUNICATION

Internal communication to
share necessary
information

LEADERSHIP

Transparency and
Accountability
Resource Mobilisation

**MANAGEMENT
SYSTEMS**

A knowledge sharing/management and learning strategy
Supporting teams that manage change efforts in the NGO
An information technology infrastructure
An organisational monitoring and evaluation process
A Quality Assurance (QA) system
An information management system
A supply chain management system

EXTERNAL RELATIONSHIPS

Partnerships with other NGOs and networks
Relationships with board of governors
Relationships with government authorities
Relationships with donors

**POLITICAL AND LEGAL
ENVIRONMENT**

Laws and Policies
Legal Restrictions

**SOCIAL
ENVIRONMENT**

Culture

INTERNAL

MICRO

MACRO

Figure 5.5 Knowledge Sharing Framework (Components and Elements) – Initial Draft

5.2.4   Identification of indicators

Indicators are the metrics used to monitor and measure progress in meeting the standards for each essential element. Measuring intermediate progress and longer term results require a systematic approach with metrics that assess efficiency, effectiveness and impact. It also forms the basis for the evaluation of leadership, coordination, and control; for identifying and recognising value-adding activities and resources; for assessing and comparing the execution of knowledge activities; and for evaluating the impacts of an organisation's performance. Measurement need not be hard and financial, but can be soft and non-financial (Van Vuuren, 2011). Indicators and measurements were added and the knowledge sharing infrastructure table is now complete (See Table 5.20).

The Knowledge Sharing Infrastructure, presented in Table 5.20, provides a comprehensive picture, illustrating the NGO components, elements, standards and indicators and the environment in which they operate. When understood and applied together, these form the foundations on which effective knowledge sharing is based.

Section 5.3 will discuss the eventual revision of the framework, therefore addressing objectives 4 and 5, relating to evaluation of the conceptual framework and revision of the framework in the light of the evaluation.   This is followed by section 5.4 which will discuss the knowledge sharing process, a method for implementing the framework.

Table 5.20 Knowledge Sharing Infrastructure Initial Version

Core Components	Essential HIV/AIDS NGO Elements	Core Competences	Indicators	How it can be measured
INTERNAL ENVIRONMENT				
1. Governing Structure	1.1 Mission and Vision Statement	The mission and vision statements are available in writing and communicated to all staff.	A mission and vision statement that is reviewed on an annual basis and communicated to all staff.	A mission and vision statement that is easily available to all staff within the NGO.
	1.2 An organisational chart which shows staff roles and responsibilities	The NGO has a structure which is well-designed and key functions, roles and responsibilities of the NGO are clearly defined.	An organisational chart that is regularly updated and consistently used.	Organisational chart exists that shows key functions, roles and responsibilities and is easily available to all staff within the NGO.
		Roles and responsibilities are defined in the policies and procedures manual and used as the basis for assigning work.	Roles and responsibilities are defined in the manual; and updated in the light of new initiatives.	Updated manual on roles and responsibilities.
	1.3 A project plan which shows where and when staff will be working	A project plan exists which shows the projects that staff are working on as well as a combined project plan showing all projects staff are working on and also the location of the staff.	A project plan that is updated regularly and consistently used.	A project plan exists and is updated regularly and distributed to staff or staff know where to find it.
2. Human Resources	2.1 Human resources policy	The NGO has a human resources policy, a training and development plan, staffing policies and regulations, which respects national labour legislation.	A human resources manual either available in paper or electronic format which displays the staffing policies and regulations.	Human Resources policies and regulations are recorded in a manual and made accessible to the staff.
	2.2 Staff performance, promotion and development	Staff's performance is annually evaluated, and procedures for complaints and performance problems are available and known by all staff members and volunteers.	An annual appraisal which defines the expectations and needs of the employee.	An annual review of staff's performance and a development plan agreed with line manager and employee.
		All employees have a fair opportunity for promotion.	Promotional opportunities are advertised and clearly identify the work and skills required.	All employees have access to where promotional materials are advertised.
		The NGO actively supports skill development for all of its staff and volunteers.	On-going training opportunities are advertised and each employee has an allocated time and budget for staff development.	Each employee has access to training opportunities.
	2.3 Personal satisfaction and commitment	Staff and volunteers are satisfied with salaries, benefits and other services to staff, policy and administrative issues, leadership, recognition of individuals and teams, empowerment and equal opportunities policies and their implementation, training opportunities and career development	Staff satisfaction survey carried out by independent consultant.	Staff satisfaction survey taken annually to make sure all staff is satisfied with salaries benefits etc. Staff have access to a union whereby complaints can be given if not satisfied with work conditions.
		Staff are motivated.	Incentives introduced to motivate staff.	Check quality and quantity of improvements suggested, absenteeism, sickness and accidents levels, grievances, staff turnover.

	2.4 Volunteer management	NGO encourages the contribution of volunteers and has recruitment and training plan for new volunteers.	Marketing plan to encourage volunteers. Training plan implemented for each individual.	Monthly review to determine how to attract appropriate volunteers. Working with voluntary organisations, maybe oversees, to attract volunteers.
		The skills of volunteers are adequately utilised.	Induction programme implemented to determine skills of each volunteer.	Regular appraisals of volunteers and programmes to determine how best to utilise volunteers.
3. Financial Resource and Administration	3.1. Financial management and accounting	Financial targets and budgets are met (no deficiency or surplus).	Procedure for management of deficit or surplus is in place.	Monthly financial review.
		The financial resources unit is led by a person with the adequate skills for the purpose.	Appropriate and skilled person in charge to review NGO's financial plans.	Item to be discussed at every the board of governors meeting.
	3.2. Funding environment	The organisation has access to resources and funding (allocations) provided by the government authorities, funding agencies and civil society stakeholders.	NGO has a financial and fundraising plan, and services, projects and programs are defined with relevant financial requirements. Mechanism in place to make sure the NGO has regular access to resources and funding (allocations) provided by the government authorities, funding agencies and civil society stakeholders.	Monthly review and discussion with rest of the NGO to make everyone aware of resources.
		The organisation is granted financial and fiscal benefits that are relevant to its legal status.	Senior Manager accountable to review financial and fiscal benefits to legal status.	Item to be discussed at every the board of governor's meeting.
	3.3 Financial reporting and accountability	Regular internal and external financial reporting is carried out (eg. monthly, quarterly, annually, as appropriate).	Item on board of governors' agenda.	Item to be discussed at every the board of governors' meeting.
4. Communication	4.1 Internal communication mechanism to share necessary information	The NGO has clear communication mechanisms, understood by all staff, to share information including changes in procedures or regulations and other important matters across organisational units and among staff at different levels.	Communication channels – memos, e-mails, intranet, and newsletters – exist and used consistently to share information internally.	Type, quality and quantity of communication channels Funds are allocated to support communication channels Number of staff who express satisfaction with communication channels.
5. Leadership	5.1 Transparency and Accountability	The NGO provides financial information regarding the NGO, in a fair and transparent way and is made available to members, beneficiaries and donors.	Annual and quarterly reports contain relevant information and are disseminated to members, beneficiaries and donors.	Standardised data collection methods and infrastructure exists.
	5.2 Resource Mobilisation	The NGO follows a revenue-generating strategy, balancing diverse sources of revenue to meet current and future needs.	The NGO obtains and uses diversified funding sources to support its programs and services.	Percentage of annual revenue generated by external sources and percentage generated by own fundraising effort Percentage of annual operating budget that is covered by income generated service delivery.

6. Management Systems	6.1 A knowledge sharing/management and learning strategy	The NGO has a clear process for gathering, documenting and packaging best practices and lessons learnt for distribution and use throughout the NGO and with the external environment.	Knowledge management strategy implemented	Description of use of tools and best practices, gathered from knowledge of staff.
	6.2 Supporting teams that manage change efforts in the NGO	The NGO has an environment that fosters effective change and actively supports internal change agents and programs.	The NGO implements routine and non-routine changes with minimum disruptions	Number of routine changes such as staffing replacements Number of non-routine changes such as new services, restructuring.
	6.3 An information technology infrastructure	IT procedures are in place and communicated to staff.	Functional IT plan	% of staff expressing satisfaction with: IT services, products and reliability Effectiveness of communication channels between IT and its users.
	6.4 An organisational monitoring and evaluation process	Data on past and current projects are available, up to date and regularly used for follow-up monitoring, program adjustments, planning and determining progress towards stated targets.	All required reports are completed, submitted on time and disseminated.	The NGO has used data and information to compare performance or service delivery targets recent projects.
	6.5 A Quality Assurance (QA) system	The NGO has established a system for assessing and improving the quality of services.	Guidelines, clinical protocols, and performance standards exist, and are regularly updated. A structured risk assessment of all aspects of the organisation to identify areas in need of quality improvement.	A written QA plan exists Conduct periodic survey to establish % of clients satisfied with quality of services Annual review of Risk Assessment Strategy.
	6.6 An information management system	The NGO has a clear system for collecting data; the plan is used to inform planning and management decisions.	Routine service and financial data collection system in place.	Nature of accurate reports submitted on schedule % of managers who use data and utilise findings to analyse trends to improve the quality of services.
	6.7 A supply management system	The NGO has efficient supply system that is used to forecast and procure supplies (drugs, equipment, office supplies and consumables) in relation to their demand and use.	A supply system with procedures and guidelines exists.	Number of relevant staff trained to consistently use the supply system.

MICRO ENVIRONMENT				
Core Components	**Essential HIV/AIDS NGO Practices**	**Core Competences (NGO, national or international)**	**Indicators**	**How it can be measured**
7. External Relationships	7.1 Partnerships with other NGOs and networks	The NGO has a clearly defined strategy and annual operational plan for policy engagement and advocacy with other HIV/AIDS NGOs.	Advocacy plan implemented.	Regular and recurring joint meetings Resource, asset, or information sharing.
		The NGO has strategic links with external NGOs and has an internal process to share technical expertise and experiences, has applied best practices to its program and shared this information with stakeholders and appropriate staff.	Mechanisms that promote multi-sectoral coordination and collaboration exist Partners hold each other accountable for progress Community engagement plan implemented	Annual joint review events Number of memoranda of understanding or partnership agreements Number of agreed joint targets met over the last X months Regular and recurring meetings with community leaders and representatives.
		The NGO has a clear referral process and strong linkages with government, private or NGO health or social service providers to ensure that clients requiring HIV and AIDS treatment or health services have access to them and are followed. Clients are consistently referred to the right locations when needed and do not encounter problems at referrals sites.	Networked referral system meets the needs of patients.	Everyone working in NGO is aware of the referral process.
	7.2 Relationship with board of governors	The NGO has a board of governors with clear terms of engagement, a code of ethics and regularly functioning board committees for specific areas, such as fundraising, finance, public relations, programmes and services.	The board of directors meets on a monthly or quarterly basis. Meetings are well planned, documented and occur at regular intervals with excellent attendance. Board of governors review financial information of the NGO, strategic and operational plan and budget, donor requirements, etc and participates in fund raising. Board has clear terms of reference and a good understanding of its key functions and those key functions are all consistently carried out.	Meeting minutes are taken and disseminated to all board members. Agenda for board meetings demonstrates variety of key roles and functions. Board Terms of Reference on file and updated. Number of board development activities.
	7.3 Relationship with government authorities	NGO has information about governmental actors, laws, and policy pertaining to the work that it is involved in.	Senior member in NGO is responsible for updating information regarding links with government authorities. Government authorities are aware who this link in the NGO is.	Reviewed on a monthly basis.
	7.4 Relationships with donors	NGO designs programs primarily based on its values and strategic goals, and needs in its sector.	NGO is aware of which donors relate to their causes.	Reviewed on a monthly basis.

MACRO ENVIRONMENT				
Core Components	**Essential HIV/AIDS NGO Practices**	**Core Competences (NGO, national or international)**	**Indicators**	**How it can be measured**
8. Political and Legal Environment	8.1 Laws and Policies	The NGO is up to date with the relevant policies related to HIV/AIDS at provincial, national and international level.	Policies are regularly reviewed and the NGO makes sure that all staff are informed of updates if needed.	Regular meeting with staff to keep them informed Information disseminated to staff on a weekly basis add political/legal matters as a standing item on the governance/management /staff meetings.
		The NGO respects laws, policies and regulations that are applicable to NGOs, including submission of yearly financial report, and staff registration.	Keep informed of new laws, policies applicable to the HIV/AIDS NGO	Regular review of appropriate laws and policies related to the specific area of the HIV/AIDS NGO.
	8.2 Legal restrictions	Procedures are in place to ensure that the NGO is aware of its legal status with regards to all issues concerned.	Staff are informed on a regular basis when updates in the law have occurred.	Regular meeting with staff to keep them informed Information disseminated to staff on a weekly basis Add policy changes as a standing item on the governance/management/staff meetings.
9. Social Environment	9.1. Culture	An understanding of the cultural issues which impacts on the specific environment in which the NGO operates.	Staff, especially volunteers, receive specific induction in the culture in which the NGO operates.	Included in the induction activities of all staff.

The framework has been developed to help understand the barriers to knowledge sharing in HIV/AIDS non-government organisations (NGOs) in South Africa and to develop a framework to support knowledge sharing in these organisations.

The framework, developed from theory, presents a knowledge sharing infrastructure which further expands on the components and elements identified in the knowledge sharing process. It presents the core components of a HIV/AIDS NGO: the internal environment, the micro environment and the external environments, and the essential NGO elements by which the HIV/AIDS NGO can measure their current development and identify their knowledge sharing needs. Essential elements and core competences define what capacity needs to be built or reinforced. The framework also includes indicators and gives examples of how to measure progress against the standards.

The next section will discuss and present the revised framework after receiving feedback from HIV/AIDS NGO practitioners and KM experts.

5.3 The final framework

This section critically discusses the changes made and how these changes evolved. In the first instance, changes that involve exclusion or relocation are presented. This is an iterative process undertaken through internal critical reflection and exposure to external critique and feedback received from evaluators discussed in chapter 6.

External expertise was derived from feedback from senior management of HIV/AIDS NGOs in South Africa and internationally recognised knowledge management experts, all of which have either confirmed the content or returned comments which resulted in changes to the framework. All changes identified in chapter 6, have been incorporated into a revised framework illustrated in Figure 5.7 (Final Framework).

The changes and issues are discussed as follows:

i. *Component 'Governing Structure' divided into 'Strategy' and 'Structures'*

Feedback received from evaluators indicates that the term '*Governing Structure*' was too broad. The researcher divided this into a component called '*Strategy*' and a component called '*Structures*'. Furthermore feedback received from the evaluators suggested that '*Governing Structure*' might imply that the board of governors were also included in this section. As board of governors were consider to be part of the external environment, the researcher changed the name of this component to '*Structures*' as it considers all that relates to the structure of the HIV/AIDS NGO.

Structures in an organisation determine how the roles and responsibilities are assigned and coordinated in the HIV/AIDS NGO and determine how information and knowledge will flow between the different levels of management in the NGO.

Strategy refers to the direction the HIV/AIDS NGO is taking and this is documented in the mission and/or vision statement. The mission and vision statement serves as a key piece of communication to employees, stakeholders and other interested parties. It provides information with regards to the purpose of the NGO and also state what makes them different from other NGOs. Management needs to commit time and resources to develop new organisational capabilities, communications and information technology to improve the quality and flexibility of the organisation. Feedback from empirical research suggests that a lack of commitment can inhibit the organisation's ability to improve internal communications and to engage with knowledge management. Although management commitment alone is not enough to secure success, drawing on theory derived from learning organisations, management must show commitment to build a shared vision and sense of purpose to actively cultivate positive organisational commitment rather than reluctant compliance.

ii.   The column '*Core Competences'* was removed

After critical reflection from the researcher and feedback received from evaluators, the core competences column in the knowledge sharing infrastructure part was removed. Core Competences were used to describe the element but after reflection the researcher thought that the elements were clear enough to describe it on its own. No need to explain it further. Based on this feedback, the core competences column was removed.

iii.   The column '*How it can be measured*' was removed

After critical reflection from the researcher and feedback received from evaluators, the column '*How it can be measured'* in the knowledge sharing infrastructure was removed. '*How it can be measured'* was used to describe the measurement to be undertaken. As all HIV/AIDS NGOs are different, it is up to the NGO to decide how these elements should be measured.

iv.   '*Structures and Support'* was included as an indicator under personal satisfaction and commitment'.

Feedback from the evaluators suggests that, '*Structures and support'* could also be considered as an element of '*Personal satisfaction and commitment'*. It is important for staff to feel they have support in the NGO and that there is someone they can go to if they need help.

v.   Add element '*Availability of funds to support learning and sharing initiatives'*.

Feedback from the evaluators suggested that, '*Availability of funds to support learning and sharing initiatives'* could also be considered as an element.

vi.   The component '*Management Systems'* was renamed '*Systems and Processes'*

After critical reflection the researcher renamed '*Management systems'* to '*Systems and processes'*. Feedback received from the evaluators confirmed that

they did not know what the term management systems implied. '*Systems and processes*' now involved all the systems and processes identified as crucial for the effective sharing of knowledge within the NGO.

vii.   New component '*Technologies*' were added.

The component technologies deals with the IT infrastructure and software needed to support the staff and processes within the NGO.

viii.   Component '*Culture*' was added.

Further feedback from the evaluators identifies that the organisational culture is key to the success of knowledge sharing within the NGO. Rather than identifying culture as a separate issue, it is expected that a key result in applying the framework however will offer an indication of the type of dominant culture emanating from the organisation.

The literature indicates that leadership, trust and power are all key attributes to culture.

ix.   The component '*Financial Resources and Administration*' was changed to an element

Feedback received from the evaluators suggests that financial resources and administration is part of the systems and processes in the HIV/AIDS NGO.

All changes identified in the foregoing have been incorporated into a revised framework illustrated in Figure 5.6, Figure 5.7 and Figure 5.8.
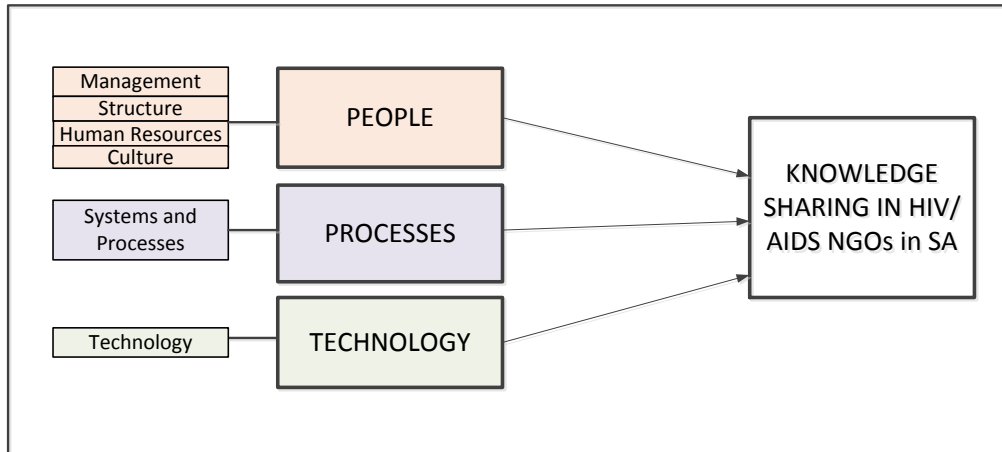
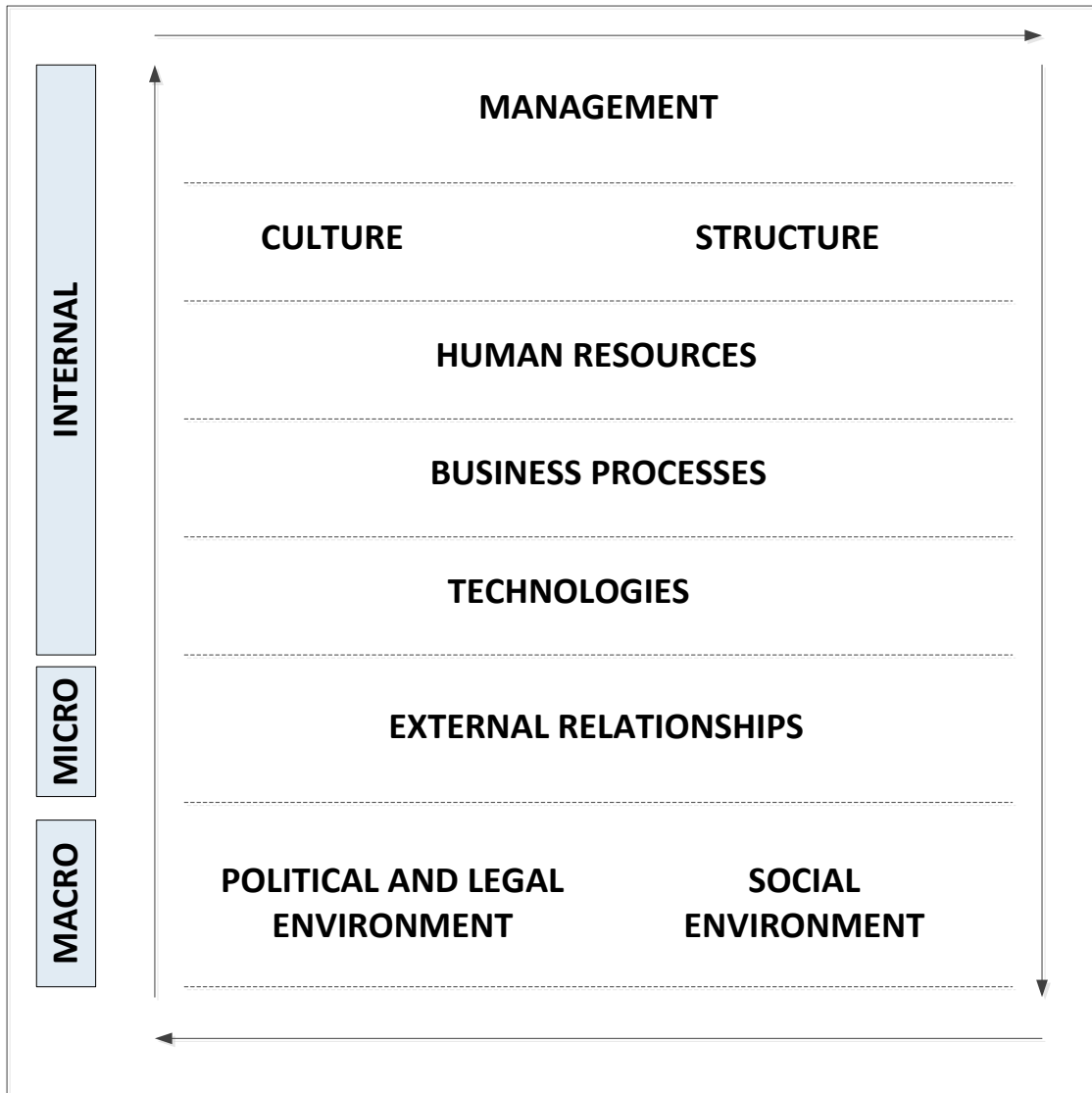Figure 5.6 Elements of knowledge sharing in HIV/AIDS NGOs (Components)
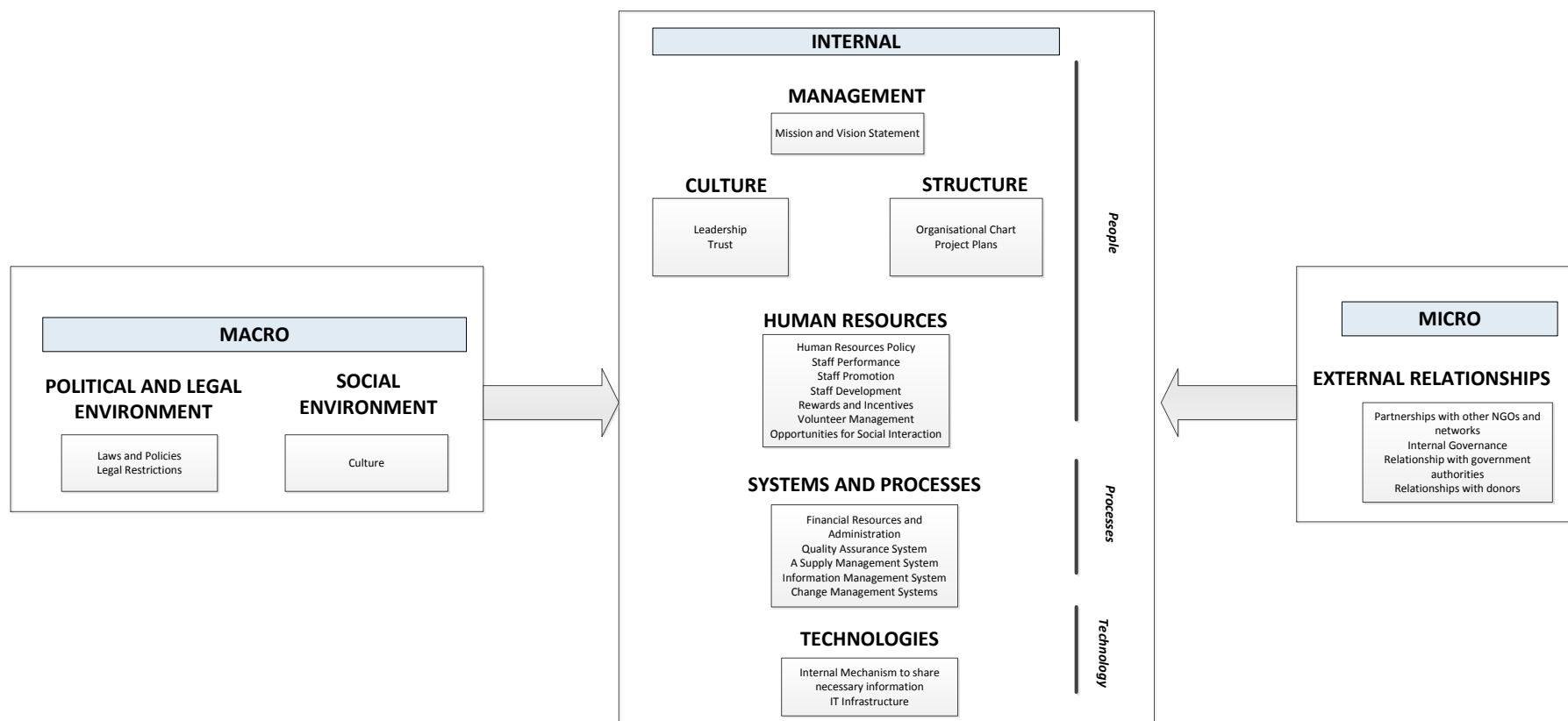
Figure 5.7 The Final Framework

Figure 5.8 The Final Framework (Elements)

Table 5.21 Knowledge Sharing Infrastructure – Final version

Core Components	Essential HIV/AIDS NGO Elements	Indicators
INTERNAL ENVIRONMENT		
1. Management	1.1 Mission and Vision Statement	− A mission and vision statement that is reviewed on an annual basis and communicated to all staff.
	1.2 Transparency and Accountability	− Annual and quarterly reports contain relevant information and are disseminated to members, beneficiaries and donors.
	1.3 Funding environment	− NGO has a financial and fundraising plan, and services, projects and programs are defined with relevant financial requirements. − Mechanism in place to make sure the NGO has regular access to resources and funding (allocations) provided by the government authorities, funding agencies and civil society stakeholders. − Senior Manager accountable to review financial and fiscal benefits to legal status.
2. Culture	2.1 Leadership	− NGO provides time for collaborative problem solving − Nurtures and develops the leadership capabilities of others
	2.2 Trust	− NGO cultivates a culture of trust and transparency.
3. Structure	3.1 An organisational chart which shows staff roles and responsibilities	− An organisational chart that is regularly updated and consistently used. − Roles and responsibilities are defined in the manual; and updated in the light of new initiatives.
	3.2 A project plan which shows when and where staff will be working	− A project plan that is updated regularly and used consistently.
4. Human Resources	4.1 Human resources policy	− A human resources manual either available in paper or electronic format which displays the staffing policies and regulations.
	4.2 Staff performance	− An annual appraisal which defines the expectations and needs of the employee.
	4.3 Staff promotion	− Promotional opportunities are advertised and clearly identify the work and skills required.
	4.4 Staff development	− On-going training opportunities are advertised and each employee has an allocated time and budget for staff development.
	4.5 Rewards and Incentives	− Rewards and incentives introduced to motivate staff.
	4.6 Opportunities for social interaction	− Communication channels – memos, e-mails, intranet, and newsletters – exist and used consistently to share information internally.
	4.7 Volunteer management	− Marketing plan to encourage volunteers. − Training plan implemented for each individual. − Induction programme implemented to determine skills of each volunteer.
5. Processes	5.1 Financial management and accounting	− Procedure for management of deficit or surplus is in place. − Appropriate and skilled person in charge to review NGO's financial plans.
	5.2 A Quality Assurance (QA) system	− Guidelines, clinical protocols, and performance standards exist, and are regularly updated. − A structured risk assessment of all aspects of the organisation to identify areas in need of quality improvement.
	5.3 An information management system	− Routine service and financial data collection system in place.
	5.4 A supply management system	− A supply system with procedures and guidelines exists.
	5.5 Change Management Systems	− The NGO implements routine and non-routine changes with minimum disruptions.
	5.6 Monitoring and Evaluation process	− Data on past and current projects are available, up to date and regularly used for follow-up monitoring, program adjustments, planning and determining progress towards stated targets.
6. Technologies	6.1 An IT infrastructure	− Functional IT Plan.

MICRO ENVIRONMENT		
Core Components	**Essential HIV/AIDS NGO Elements**	**Indicators**
7. External Relationships	7.1 Partnerships with other NGOs and networks	− Advocacy plan implemented. − Mechanisms that promote multi-sectoral coordination and collaboration exist. − Partners hold each other accountable for progress. − Community engagement plan implemented. − Networked referral system meets the needs of patients.
	7.2 Relationship with board of governors	− The board of directors meets on a monthly or quarterly basis. − Meetings are well planned, documented and occur at regular intervals with excellent attendance. − Board of governors reviews financial information of the NGO, strategic and operational plan and budget, donor requirements etc and participates in fund raising. − Board has clear terms of reference and a good understanding of its key functions and those key functions are all consistently carried out.
	7.3 Relationship with government authorities	− Senior member in NGO is responsible for updating information regarding links with government authorities. Government authorities are aware who this link in the NGO is.
	7.4 Relationships with donors	− NGO is aware of which donors relate to their causes.
MACRO ENVIRONMENT		
Core Components	**Essential HIV/AIDS NGO Elements**	**Indicators**
8. Political and Legal Environment	8.1. Laws and Policies	− Policies are regularly reviewed and the NGO makes sure that all staff are informed of updates if needed. − Keep informed of new laws, policies applicable to the HIV/AIDS NGO.
	8.2. Legal restrictions	− Staff are informed on a regular basis when updates in the law have occurred.
9. Social Environment	9.1. Culture	− Staff, especially volunteers receive specific induction in the culture in which the NGO operates.

5.4   A method for implementation

The knowledge sharing framework provides a relatively comprehensive description of elements to consider in studies, investigations and prescriptions of knowledge sharing in HIV/AIDS NGOs in South Africa. It serves as a basis for thinking about extensions and refinements that could yield an improved and more detailed framework of knowledge sharing influences. It furnishes a language (i.e. a system of terms and concepts) for the study of   knowledge sharing influences, a basis for generating varied research issues to explore, a means for identifying factors with which knowledge sharing practitioners should deal (i.e. a checklist for considerations), and a frame of reference for benchmarking knowledge sharing practices as they relate to influences. In this section the researcher will briefly highlight some of these framework applications.

Table 5.21 presents the revised Knowledge Sharing Infrastructure. The list of components and elements may not be exhaustive, because a HIV/AIDS NGO may identify additional elements that require consideration according to their specific circumstances, suggesting that an HIV/AIDS NGO Knowledge Sharing Infrastructure should include elements pertaining to core competences, elements and indicators. More specifically, the Knowledge Sharing Framework can be applied to develop a checklist for the influences. The factors listed for each of these influences are extracted from the final framework description assessed by the evaluators. The columns on the right in the checklist are meant to indicate that each factor can be addressed within and/or across HIV/AIDS NGOs, depending on the scope of the initiative.

The knowledge sharing process is derived from a review the researcher undertook of knowledge sharing theories, frameworks and models in chapter 2. Among the theories or frameworks are many shared aims. These commonalities are represented by the following phases:

- The identification of a problem that needs addressing
- The identification, review and selection of the knowledge relevant to the problem
- The adaptation of the identified knowledge to the local context
- The assessment of barriers to using that knowledge
- The selection, tailoring and implementation of the interventions to promote the use of knowledge
- The monitoring of using that knowledge
- The evaluation of the outcomes of using that knowledge
- Sustaining the ongoing use of that knowledge.

As part of this research a process for intra-organisational knowledge sharing has been developed for HIV/AIDS NGOs, comprises of five stages:

1. **Internal Knowledge Assessment**

   This process involves finding out exactly what knowledge currently exists in the NGO and where the knowledge gaps are in terms of people, processes and technologies.

2. **External Knowledge Identification**

   This phase involves finding out where (externally) tacit and explicit knowledge can be found to fill the knowledge gaps found in stage one. This stage also looks at how access can be gained to the knowledge source and what is needed to facilitate this knowledge sharing.

3. **Knowledge Utilisation**

   This phase involves the application of 'new' knowledge to the HIV/AIDS NGO to address the identified knowledge gap identified in stage one. It also involves the identification and ways to overcome the barriers to implementing this 'new' knowledge.

4. **Knowledge Evaluation**

   This phase involves reviewing whether this 'new' knowledge added value to people and processes involved.

5. **Knowledge Sustainability**

   This phase involves ensuring that new knowledge is shared appropriately with other HIV/AIDS NGOs and other relevant organisations.

The relation between these five stages is represented in Figure 5.9.
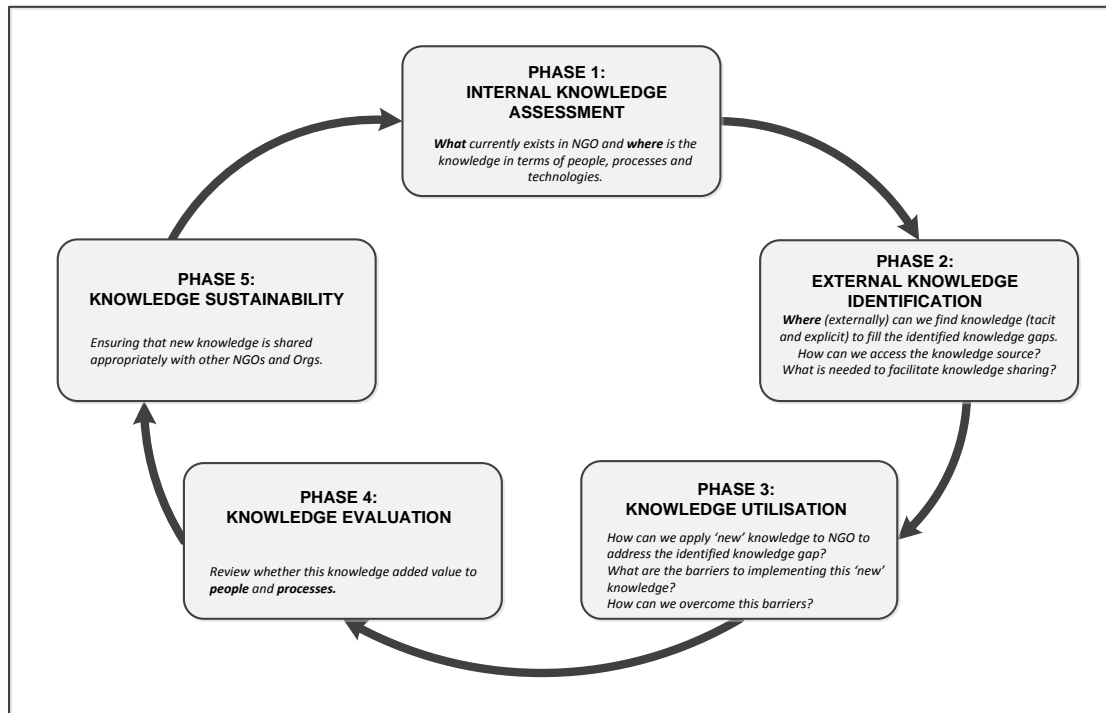
Figure 5.9 Knowledge Sharing Process

The section now will propose a method that HIV/AIDS NGOs can use to implement the proposed framework.

Phase 1 – Internal Knowledge Assessment

NGOs become involved in HIV/AIDS-related work because they want to respond to the urgent needs of people living with HIV/AIDS. To make good decisions about starting or increasing the scope of HIV/AIDS-related work, the NGO needs to analyse the existing needs, resources and action not only in the community but in the NGO itself. There is a growing awareness amongst NGOs, especially HIV/AIDS NGOs, to improve consistency and robustness of how they assess and demonstrate the effectiveness of the way that they work. The current political and economic climate in South Africa, coupled with the need to compete for funding with other HIV/AIDS related organisations, has also made it increasingly important for HIV/AIDS NGOs to describe and demonstrate what their NGO is currently doing and how they can demonstrate their value. Unlike business, the NGO is driven by value and not by profit. Kaplinsky and Morris (2001) describe the value chain as "the full range of activities which are required

to bring a product or service from conception". In this research the value chain approach is proposed to identify the knowledge gaps within the NGO, either as a project as a whole or as an activity to better identify where these knowledge gaps lie and how the NGO can fill these gaps.

An assessment of a HIV/AIDS related project should cover areas such as:

- The people involved in the project
- The processes and procedures involved in that project
- The tools and technology used to support the people, processes and procedures.

This phase of the knowledge sharing process would help identify where the knowledge resides in the NGO and identify areas where value could be added by focusing on the people, processes and tools that already exist within the NGO. This first stage of the framework will assist the NGO to set appropriate goals with the right people, procedures and tools to support the identified goals and identify where resources are needed and how these resources can be obtained if not available in the NGO.

The steps involved in this stage are:

- For a specific project, what are the NGO's current processes and practices? (activity analysis)
- What would add further value to my project? What change is needed to add value to the project? (value analysis)
- What resources (internal and external) need to be added to add value to the project (knowledge assets identification)
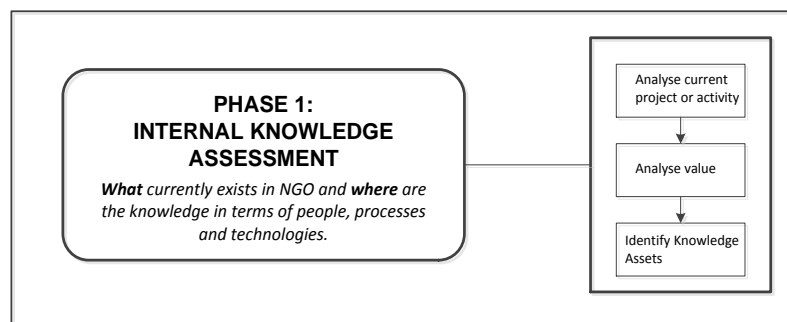

Figure 5.10 Knowledge Sharing Phase 1 – Internal Knowledge Assessment

Activity Analysis

An activity analysis is generally used to identify and describe the activities in an organisation and to evaluate the impact of its operations on the organisation. It is especially important that a HIV/AIDS NGO carry out an analysis of current activities to see how and where activities could be improved.

Value Analysis

Once the activities have been identified, the NGO need to establish what would add further value to the project. Very often NGOs only work with resources they have instead of finding out what extra resources, whether it is people or tools, could be added to add the most value to the project. For example, a HIV/AIDS NGO based in Cape Town, South Africa created an 'Aftercare' program which the public health system and its health workers to provide home based care for HIV/AIDS patients receiving ART treatments. Each Aftercare worker is assigned to monitor 15 to 20 patients. Instead of patients travelling long distances to hospitals to receive ART treatments, the Aftercare worker visits them in their home and discusses their one-on-one treatment with the patient. Using their mobile phones, the Aftercare worker captures information about the patient's medical status, drug adherence and other factors which affects a patient's ART therapy. This information is then relayed via a text message to a central Cell-Life database. A care manager uses a web-based system to access and monitor the incoming patient information. The care manager can also respond to Aftercare workers' questions and provide supplemental information to improve patient care. The information collected not only facilitates patient care, but is also used to build a database of information on the severity and prevalence of the epidemic in that area.

The above would not have been accomplished if someone in the NGO has not identified the problem and asked what would add further value to this project and the lives of the people infected by the HIV/AIDS virus.

Identify Knowledge Assets

Once a value analysis has taken place, the NGO needs to identify what knowledge assets are needed, either internally or externally. Using the case of Cell-Life above, the NGO identified that a tool was needed to capture the information, and in this case mobile phones, were the solution. In South Africa mobile phone networks cover more than 90 percent of the country's territory and the data collection software used is able to operate on low-cost phones. The NGO realised that this process and technology would add value and formed an alliance with a strategic partner to deliver a low-cost solution to the problem at hand.

Phase 2 – Knowledge Identification

The key to competitive advantage lies in the ability of NGOs to form learning alliances, these being strategic partnerships based on a business environment that encourages mutual (and reflective) learning between partners (Lewis, 2006). Organisations, especially HIV/AIDS NGOs, can utilise their strategic framework to identify partners, and collaborators for enhancing their value chain. A vast amount of literature addresses the role of partnerships in community health with a particular focus on NGOs, but much of it focuses on contents in the United States that are very different from remote, rural South Africa (e.g. Campbell et al., 2007). Campbell et al. (2007) undertook studies amongst HIV/AIDS NGOs in South Africa and commented on "the urgent need for more attention to the complexity and resource-intensive nature of partnership-building" of health and development agencies, which includes HIV/AIDS NGOs, concerned with HIV/AIDS management.

The main barriers identified in collaborating with other NGOs are cultural differences and trust. A possible solution would be to create a 'roadmap' which makes it easier for NGOs to collaborate and share knowledge. The proposed framework will incorporate Campbell's (2007) checklist for criteria for effective partners which involve:

- *Commitment* from partners to fully participate in the project

- Partners *conceptualise* the complexity of the HIV epidemic, their limited ability to make a significant contribution in isolation from other agencies
- Partners identify their *incentives* for participation
- The need for positive *morale and confidence* among potential partners
- *Institutionalisation* of partner roles i.e. formally writing down the roles and responsibilities of each partner.

If HIV/AIDS NGOs are aiming to work together to achieve mutually agreed goals, the issue of trust becomes very important. Trust is built, among other things, on an open relationship, transparent decision making, mutual respect and positive experiences of co-operation. The second stage of the conceptual framework will incorporate these issues and provide a platform by which the knowledge medium can be identified.

Currently the only way to find partners to work with is either through word of mouth or by registering through an information portal (e.g. SANGO Net Pulse), an HIV/AIDS NGO can post opportunities. HIV/AIDS NGOs need to become more aware of the NGO and/or organisations to collaborate and share knowledge.

In the province of KwaZulu-Natal there are over 150 NGOs that focus on the main programme areas in relation to HIV/AIDS: Prevention, Care, Treatment and Health strengthening. Each of these programme areas are divided into sub areas, for example *Prevention* can focus on Prevention of Mother to Child Transmission (PMTCT), Prevention of Sexual Transmission, Blood Safety, Injection Safety, Male Circumcision, Counselling and Testing while *Care* can be divided into Adult and Paediatric Care & Support, TB/HIV, Orphans & Vulnerable Children. One HIV/AIDS NGO can focus on one or more different areas. See for example Figure 5.11.
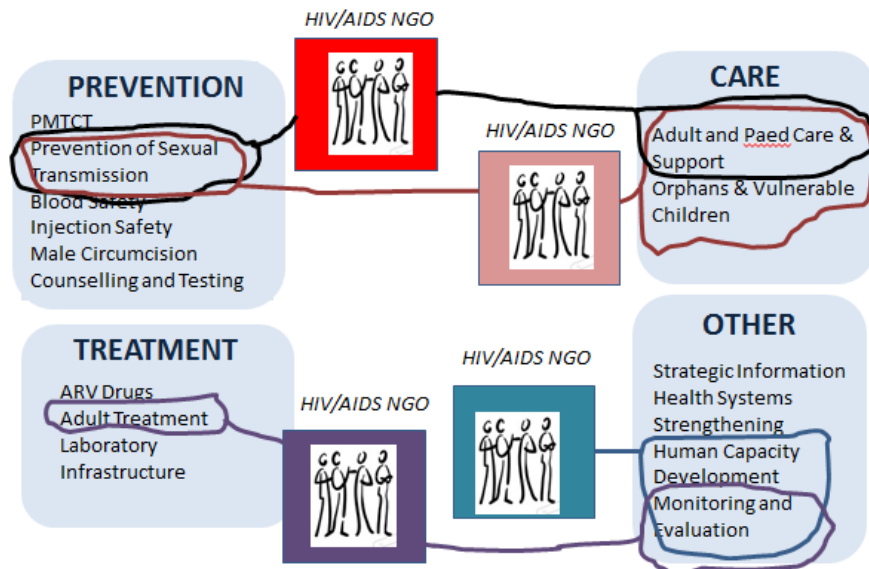
Figure 5.11 Different HIV/AIDS NGO working on common areas

HIV/AIDS NGOs have to work collaboratively to ensure that people who need their services receive the full range of services and not 'fall through the cracks". Once the HIV/AIDS NGO has identified its knowledge needs, it needs to identify a collaborator and negotiate access to the knowledge source.

Phase 2 of the knowledge sharing process would help identify the knowledge medium by granting the HIV/AIDS NGO access to the HIV/AIDS directory after which the HIV/AIDS NGO can negotiate access to the knowledge source and identify a mechanism for knowledge transfer by focusing on the people, processes and tools needed for this to take place.

The steps involved in this stage are:

- Locate tacit and explicit knowledge identified in Phase 1
- Negotiate access to this knowledge and agree access to these resources
- Identify mechanism to gain access to this knowledge
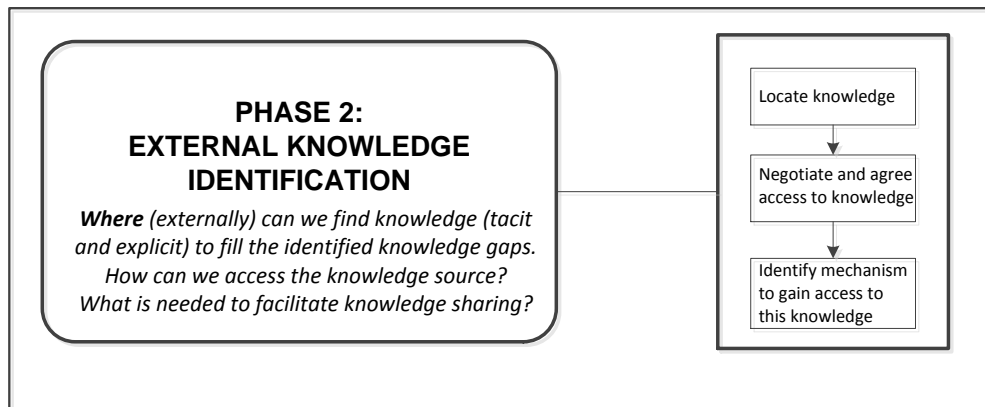
Figure 5.12 Phase 2: External Knowledge Identification

Locate Knowledge Resources

Once a knowledge gap has been identified, the NGO need to locate the knowledge source. This can be done either by using a HIV/AIDS NGO they are familiar with or by using the HIV/AIDS NGO directory.

Gain Access to Knowledge Source

Very often gaining access to the knowledge source – first the HIV/AIDS NGO and then the source within the NGO that holds the knowledge – comes through personal relationships and/or encounters with the HIV/AIDS NGO or through referrals. If however a new partnership is being sought with no previous encounters or referrals the HIV/AIDS NGO will need to initiate a meeting with organisation with which he would like to engage.

Agree Mutual Understanding

Once initial contact has been made and the knowledge source has been identified, the two organisations need to agree on mutual understanding. This is where Campbell's (2007) checklist for criteria for effective partners will need to be observed and followed to make sure that both parties identify clearly what and how this knowledge sharing will benefit both parties involved.

Identify Knowledge Sharing Mechanism

The last part of this stage involves the identification of a knowledge sharing mechanism. If the skills of people are needed by the HIV/AIDS NGO (source) then a schedule, for example, needs to be created for when and for how long this resource will be helping the HIV/AIDS source. If technology is used for example to transfer software, then the appropriate technology tools need to be identified which will enable both parties to transfer the appropriate tools.

Phase 3 – Knowledge Utilisation

Often the knowledge exists but the organisation do not know what to do or how to transform the knowledge so that it can be of use to their organisation. This phase will discuss the steps that needs to be taken to ensure that the knowledge brought in from 'outside' is used effectively and efficiently so that the HIV/AIDS NGO can maximise it to its fullest potential. This stage forms the building blocks for 'organisational learning'.

The steps involved in this stage are:

- Adapt knowledge to local context

- Assess barriers to ongoing knowledge use

- Implement interventions
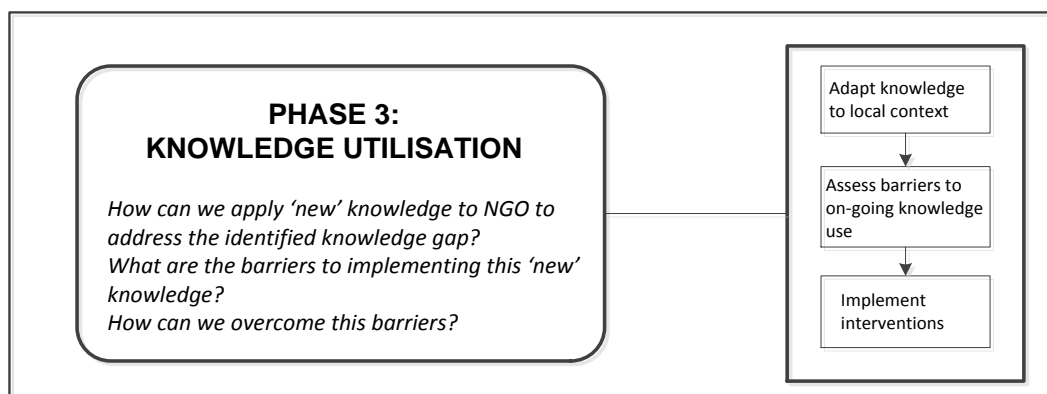
Figure 5.13 Phase 3: Knowledge Utilisation

Adapt Knowledge to Local Context

This sub phase involves the process individuals or groups in the NGO go through as they make decisions about the value, usefulness, and appropriateness of particular knowledge to their setting. This sub phase also includes those activities that they may engage in to tailor the knowledge to their particular setting.

Assess Barriers to Ongoing Knowledge Use

During this phase, those individuals wanting to bring about change (implementers or change agents), should assess for potential barriers that may hinder the uptake of the new knowledge. These barriers may then be targeted and hopefully overcome or diminished by relevant and appropriate intervention strategies.

Implement Interventions

This sub phase is about planning and executing interventions to facilitate and promote awareness and implementation of the new knowledge. This sub phase involves selecting and adapting interventions to the identified barriers and intended audiences. For example, when the barriers are related to the NGO's service delivery, introducing reminder systems or changing staffing levels may be useful strategies of intervention.

Phase 4 – Knowledge Evaluation

The literature describes three types of knowledge use. There is (1) conceptual use of knowledge – this type describes the changes in the levels of knowledge, understanding, or attitudes; (2) instrumental use – the type describes the changes in behaviour or practice; and (3) strategic use – this type relates to the manipulation of knowledge to attain specific power or profit goals. The monitoring of the use of knowledge is necessary to determine how and the extent to which it has dispersed by the people using it. The monitoring of the use of knowledge can also be used to determine whether the interventions have been adequate to bring about the desired change or whether more of the same or new interventions may be required. If the degree of knowledge use is less than expected and desired, it may be useful to reassess the potential adopters at this

stage about their intention to use the knowledge. This could help to determine whether the lack of change is related to their lack of interest in changing, other barriers beyond their control, or new barriers that may emerge after the initial introduction of the adapted knowledge.

The steps involved in this stage are:

- Monitor the knowledge use by:
    - Measuring the conceptual use of the new knowledge
    - Measuring the instrumental use of the new knowledge
    - Measure the strategic use of the new knowledge
- Determine the impact of using the new knowledge
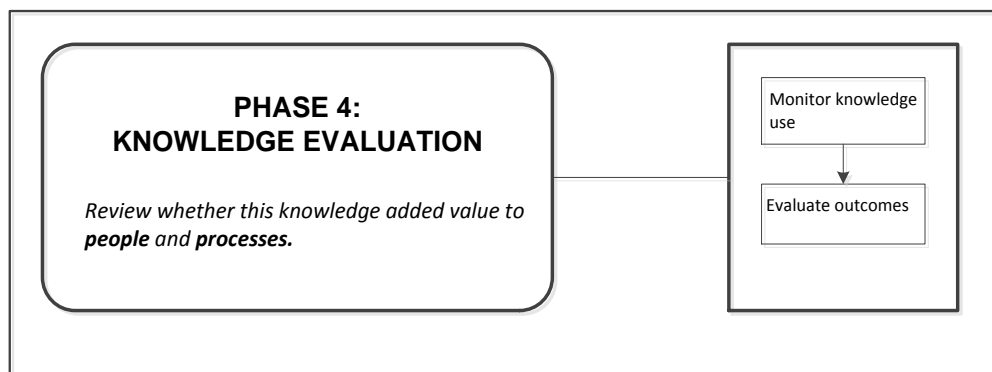
Figure 5.14 Phase 4: Knowledge Evaluation

Determine the impact of using the new knowledge

During this sub phase the impact of using the knowledge is determined. Here it is determined whether the application of the knowledge actually made a difference. By evaluating the impact of knowledge use, one can determine whether the efforts to promote its uptake were successful.

Phase 5 – Knowledge Sustainability

This sub phase is about sustaining the use of knowledge in the NGO. Very little has been documented about this important aspect of the knowledge sharing process as interest in sustainability of knowledge use is relatively recent.

Knowledge sharing in healthcare is a necessity and common practice, but conducted in a rather ad hoc manner (Bali et al., 2009). This is also the case in the HIV/AIDS domain. Knowledge sharing might occur during problem-solving conversations between two colleagues, a clinical situation, an administrative policy, a government policy, referrals to a HIV/AIDS specialist etc. Typically, these knowledge-sharing activities are orchestrated in an unchartered and informal manner. Although this manner might results in success, the reality is that most often the knowledge sharing community (i.e. donors and seekers) are not sustained for future knowledge-sharing activities, the knowledge is not shared or recorded during the knowledge sharing processes, the knowledge sharing medium in not maintained for future knowledge sharing exercises and the knowledge sharing culture is not promoted and consolidated.

The steps involved in this stage are:

- Identify potential barriers that may limit update of the knowledge
- Identify facilitators to ongoing knowledge sustainability
- Select and tailor interventions to the identified barriers
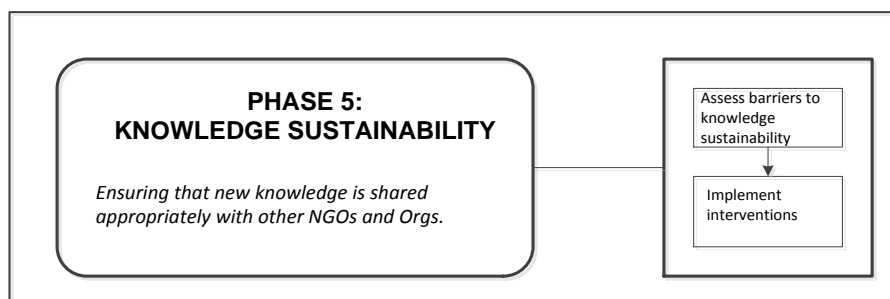
Figure 5.15 Phase 5: Knowledge Sustainability

Assess Barriers to Knowledge Sustainability

Although the barriers to ongoing use of the knowledge may be different from the barriers when the knowledge was first introduced, the process for planning and managing the change should be the same: assess barriers to knowledge sustainability, tailor interventions to these barriers, monitor ongoing knowledge use, and evaluate the

impact of initial use and sustained use of the knowledge. This phase sets in motion a feedback loop that cycle through the other action phases.

Implement Interventions

Both local and external knowledge creation are integral to each action phase. For example, local research can be done to determine the magnitude of the care gap. External knowledge or research from the literature can be used to identify potential barriers to knowledge use and implementation interventions shown to be effective.

This knowledge framework is an attempt to provide consistency and simplicity, especially for NGOs in South Africa dealing with the HIV/AIDS epidemic.

Figure 5.16 illustrates the knowledge sharing process that can be followed for implementation of the framework. The framework is not intended to be sequential, but for illustrative convenience has been presented in this way.
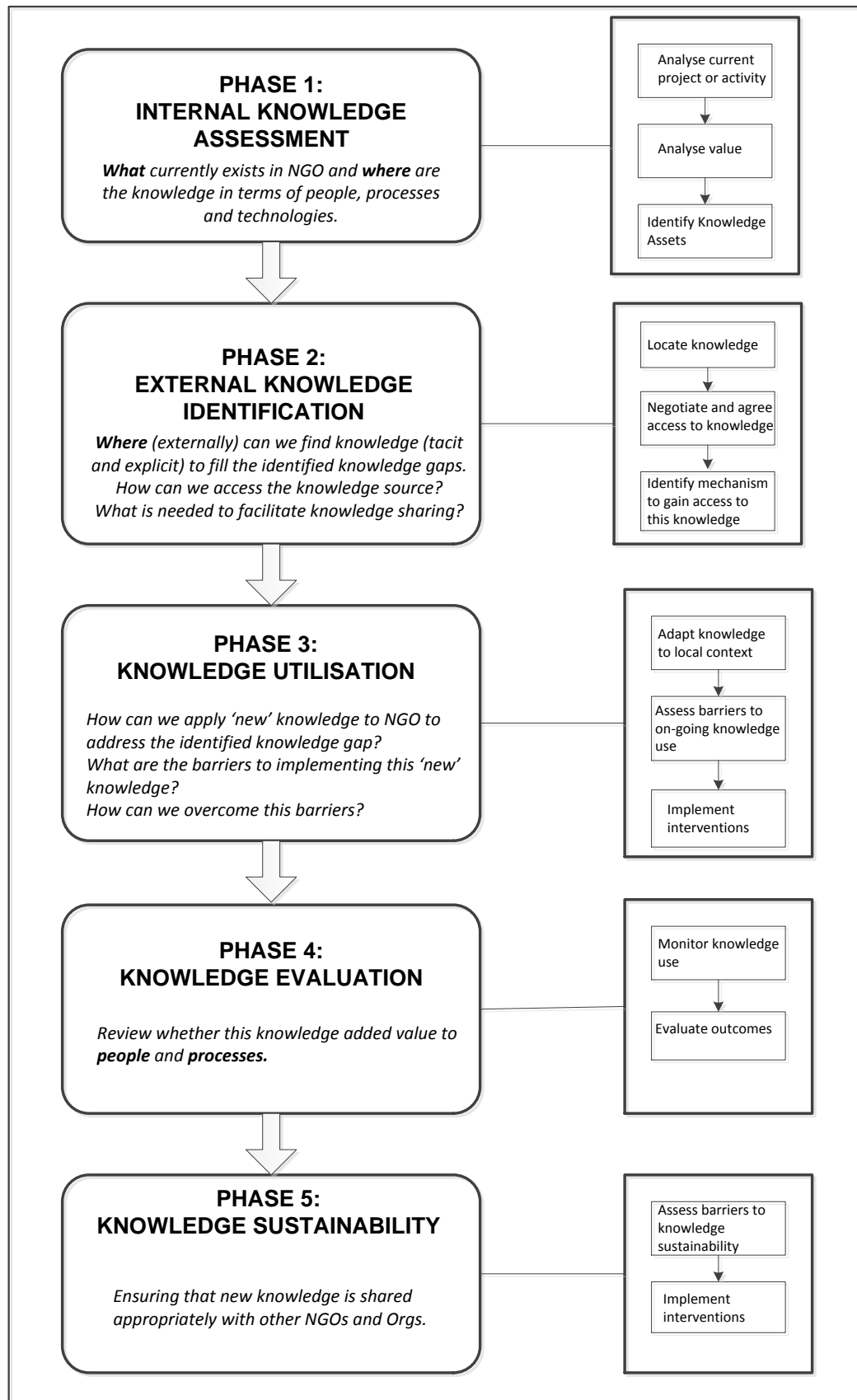
Figure 5.16 Knowledge Sharing Process with Sub-Phases

5.5   Summary of key issues presented in this chapter

This chapter emerged from research discussed previously, and focuses, in detail, on the development of a new conceptual framework. The new framework offers a holistic, critical, high-level strategic approach, in addition to more detailed operational guidance as to how to consider a HIV/AIDS NGOs approach to knowledge sharing in South Africa. This is in contrast to previously reviewed frameworks and is also different from other frameworks because it is not prescriptive, but is intended to help empower a HIV/AIDS NGO to undertake critical self-evaluation at people, processes and technology level.

The framework has undergone development, critical review and improvement resultant from previous research and as a distinct and separate exercise to maintain the integrity of the work, application and testing in a university. The main emphasis of the framework is on people, which derives from the view that knowledge resides with individuals who comprise the organisation. This however is not to the exclusion of other aspects of an organisation, and the framework reflects this through the components and elements that show the interdependency of knowledge sharing.

The Domains and Elements within the framework have been derived from empirical research and literature review and refined through critical reflection and reasoning, and feedback from external expertise to produce an initial and revised version of the framework. It is recognised that the Elements may not be exhaustive, because the NGO may identify additional Elements that require consideration according to their specific circumstances. All changes that were required as a result of feedback have been presented and the justification made clear, therefore ensuring a critically reflective and transparent process of development.

The following chapter will concentrate on the evaluation of the framework.

CHAPTER 6: EVALUATION OF THE FRAMEWORK

The key limitations of current knowledge sharing approaches for HIV/AIDS NGOs in South Africa have been outlined in chapter 2 and chapter 3 as a result of a review of relevant literature and feedback from various HIV/AIDS NGOs. A new conceptual knowledge sharing framework for HIV/AIDS NGOs was developed as part of collaboration with a HIV/AIDS NGO in South Africa. The framework was formalised and presented in chapter 5.

This chapter details the evaluation that has been undertaken to prove that the conceptual framework is fit for purpose. The results of the evaluation will be discussed and how the framework was adopted due to these changes.

6.1   Strategy adopted

The objective of the evaluation was to test the use of the framework by requesting key staff from various HIV/AIDS NGOs in South Africa and experts in the knowledge management field to complete the assessment. Two key objectives to be met were:

1. Identify any improvements to the generic framework.
2. Identify changes that might be made in the application of the framework specific to the collaborator, The AIDS Foundation of South Africa.

Once the conceptual framework had been developed, evaluation of the framework became the focus of the research. That is, the researcher can now focus on answering the main research question outlined in chapter 1 as:

How can knowledge sharing be improved in HIV/AIDS non-government organisations in South Africa?

6.2   Approach taken

The approach taken was two-fold. Evaluators were asked for their input in improving the framework and secondly, the evaluators were asked to comment on the comprehensiveness, clarity, conciseness and correctness of the framework within their organisation. These four conditions are very similar to the conditions used for theory evaluation. Comprehensiveness is similar to scope criteria, conciseness relates to parsimony, clarity and correctness relate to construct specification (Kerlinger and Lee, 1999).

Throughout the development phase, the initial and subsequent frameworks were evaluated against predefined criteria. Drawn from literature, these criteria were influenced by elements from:

1. A set of issues raised by HIV/AIDS practitioners in South Africa (section 3.2, section 3.3 and section 3.4).
2. A set of "best practices" that relates to knowledge sharing as identified in the literature (section 2.3).
3. A set of knowledge sharing frameworks in the literature (section 2.4, section 2.5 and section 2.6).

The process of evaluation consists of two phases. In phase one, views from the collaborating institution were elicited. A summary of the questionnaire which was sent to phase 1 evaluators can be found in Appendix 5. The evaluators' responses were then organised and analysed by the researcher to produce a summary of their views. These views were then incorporated in the framework and the framework updated. (see Section 5.3 for a draft framework). The reviewed framework and questionnaire were then sent to

the next round of evaluators for a response. A summary of the questionnaire which was sent to phase 2 evaluators can be found in Appendix 6. Evaluators consisted of a combination of senior staff from HIV/AIDS NGOs and a selection of KM experts. These responses were again collected and a final framework produced. (See section 5.4 for final framework)

The methodology serves dual purposes:

i.   It is a means for gathering HIV/AIDS practitioners' perspectives and critiques of a framework as a basis for revision and improvement.

ii. It creates an opportunity to obtain independent assessments of the framework with respect to comprehensiveness, clarity, conciseness and correctness.

Evaluators were also asked for their views on benefits of the framework. A diverse selection of people experienced in the HIV/AIDS and KM field were consulted.

Figure 6.1. illustrates the process undertaken to carry out the validation of the framework.
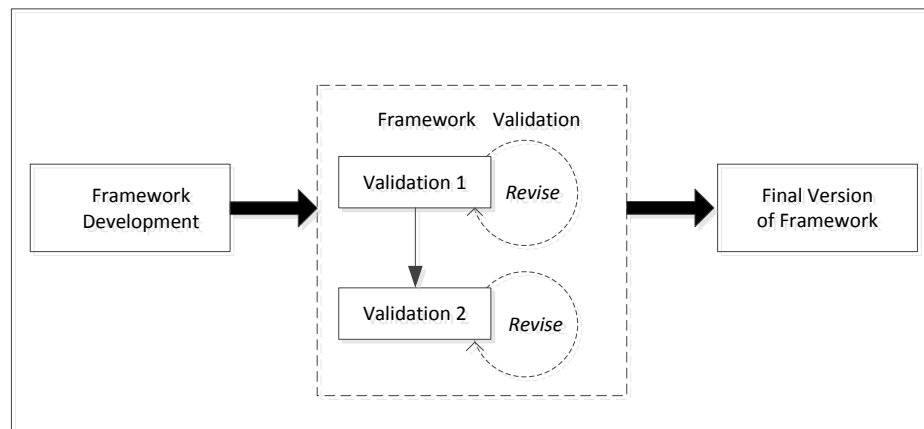
Figure 6.1 Validation Process

6.2.1 Evaluator Selection Process

Day and Bobeva (2005) claim that the calibre of the experts largely determines the quality of the results obtained. The objective of the selection process was to identify individuals that correspond to the criteria outlined for inclusion in the research. It was very important that the participants in the process are indeed an "expert" in the field under investigation (Singh and Kasavana, 2005). The first challenge of the selection process involves the decision as to how to suitably define an "expert" in the context of a particular study. Gutierrez (1989) argues that an expert is a person who is actively involved in the area of research. They have an intimate knowledge of the research area and are committed to a deeper understanding of that area.

Research has shown that there is no clear understanding as to what constitutes the ideal number of participants (Kreber, 2002). Czinkota and Ronkainen (1997) argue that the participant's composition is more important that the size of the participants. The number of participants used however is also imperative because the dependability of the results improve with an increase in number of participants.

A total of 9 candidates were identified for participation which is more than the views of Brockhoff (1975). Brockoff suggests that the minimum acceptable size can be as low as 4.

The evaluators were all based in HIV/AIDS NGOs in South Africa or regarded as international KM experts. Table 6.1 provide a brief analysis of the details of the participants who were selected as evaluators.

Table 6.1 Details about Evaluators

Phase	Position of Evaluator	Type of Organisation
1	Operations Manager	HIV/AIDS NGO in South Africa
2	Manager	HIV/AIDS NGO in South Africa
	Director	HIV/AIDS NGO in South Africa
	Nursing Director	HIV/AIDS NGO in South Africa
	Reader	University in Scotland
	Associate Professor	University in Spain
	Director	University in Wales
	Principal Lecturer	University in UK
	Professor	University in Italy

6.2.2   Phase one

A questionnaire for the evaluator was designed (see Appendix 5). The questionnaire asked the evaluator to critique the framework in terms of the evaluation criteria (comprehensiveness, clarity, conciseness and correctness). In additions to written critiques, evaluators were asked to provide evaluations in terms of Likert-scale items. The researcher used a four-Likert-scale point scale to allow for considerable discretion in making refined judgements about the degree of success in meeting each criterion (from "vital" to "irrelevant").   If an evaluator expressed dissatisfaction with certain aspects of the framework, the questionnaire prodded for an elaboration of why and asked for suggestions of ways to make improvements.

The following items were e-mailed in the first round: an e-mail inviting the collaborator to participate, the questionnaire and a document describing the initial framework.   The evaluator was asked to return the document within two weeks. A reminder email was sent 3 days before the due date.

The evaluators' responses were recorded (see Table 6.2) and provided responses to scaled questions and open-ended questions. The tables were then used in creating an analysis of responses. This document contained responses grouped by corresponding questionnaire items. For each questionnaire item, all comments and critiques were considered, reviewed, and evaluated as a basis for organising them. Responses for an item were first categorised into two groups: (1) to be considered in framework revision (2) beyond the research

boundaries. Comments in the first group were further classified into three categories: (1) concerns that were repeated and/or seemed to be of major importance; (2) concerns that were not so frequent and/or as major, and; (3) concerns that occurred infrequently and/or seemed less critical.

6.2.3   Phase two

In the second phase, the initial framework was modified, refined and extended based on the ideas that were stimulated by the evaluators' responses. The fundamental modifications involved extensive revisions by incorporating and developing new concepts stimulated by evaluators' comments, detailing and further characterising the concepts existing in the initial framework, and further justifying the framework elements. Clarification was needed when an element was already present in the framework, but evaluators' comments indicated a need to explain it more clearly or emphasise it more. This process is further illustrated in the analysis section (Table 6.2.) below.

Again, the following items were e-mailed: an e-mail inviting the evaluators to participate, the questionnaire and a document describing the initial framework. The evaluator was asked to return the document within two weeks. A reminder email was sent 3 days before the due date. Second-phase responses were analysed in the same manner as first phase responses. The assessments are described in the next section.

6.3   Analysis of responses

The purpose of evaluation was two-fold. The first part of the evaluation document asks each evaluator to comment against each component. It also asks each evaluator for specific comments for each component and the list of elements. The second part of the evaluation document asked for feedback on comprehensiveness, clarity, conciseness and correctness of the proposed framework. The conceptual framework was exposed to critique to address the

subjectivity in the interpretation of results from the literature and empirical research. The results from this process allowed for further refinement of the framework.

Evaluation of the conceptual framework required direct experience from the field. This means that the specific data collection and analysis strategies in this research were driven by one or more collaborators, between the researcher and real organisations. The method of evaluation was the feedback from questionnaires sent to the senior management team of HIV/AIDS NGOs in South Africa and a selection of internationally recognised knowledge management experts. The findings from these methods were collected and the conceptual model was refined to produce a 'final model'. The 'final model' captured the views of the evaluators and provided a more robust model with the notion that the conceptual knowledge sharing model is accepted as valid and appropriate by experts in the field.

Despite the value of qualitative data as a source of rich descriptions and explanations of processes, there are a number of well-known difficulties associated to their analysis. A challenge would be providing evidence of the applicability of this framework in other NGOs and by other individuals different from the researcher who implemented, assessed and refined it in the field.

Auberbach and Silverstein (2003) and Bryman (2012) agree on the importance of trying to achieve two main targets while carrying out qualitative data analysis. These are:

- Focusing on the most important aspects of the data collected.
- Transforming the data into something meaningful for the research and its audience.

Following the viewpoints of Bryman (2012), the researcher focused on the important aspects of the data collected, making the necessary adjustments based on the evaluators' responses and transforming the framework into something meaningful for the research. Table 6.2 summarises specific comments that emerged during the evaluation. In keeping with the concept of internal and external critique, the responses of the researcher to this

feedback are also provided. The researcher's responses are intended to focus on the development and improvement of the framework, rather than any real evaluation of the NGO. The reason for this is that it is the framework and process of evaluation that is being tested to establish its fitness for purpose. To fairly evaluate the organisation would require a broader and increased number of staff involved to reach a fair balance and overview of the organisation.

Table 6.2 Summary of critical reflection/responses from HIV/AIDS NGOs and KM Experts

	Comments about generic framework	**Critical reflection/response**
Please consider the list of elements associated with the component '*structure*' (1.1 - 1.3 of the accompanying documentation). Can you suggest any other elements that the current framework does not consider?	• Although the Directors of the NGO are considered in section 6, directors who are carefully appointed to represent various interest areas outside the structure can inform the internal structure and enhance the connection with outside interests. • The distinction between "governing structure" and "management system" is not completely clear. • Board roles and responsibilities – I understand that this is addressed further on in the document under 7.2, but the Board form part of the governing structure and responsible for overseeing progress towards the vision and mission. I just thought it may be useful to address their roles and responsibilities under this section too. • Roles and responsibilities are fine but I would add an organisational chart which shows identified problems, inappropriate assumptions about inappropriate medications, inappropriate approaches to the administration of medicines and inappropriate decisions. • Departmental organograms • The document considered different perspectives of information sharing – all equally useful to ensure that the concept is communicated, delivered and embedded. While the structure was evident, i.e. what would be done, the "how" element felt very formal. It wasn't clear how any feedback from staff/others could inform developments to refine strategy and operational approaches.	• Name of component changed from 'Governing Structure' to 'Organisational Structure'. Governing structure might imply the inclusion of the board of governors, which was not the intention. • Not accepted and no changes made. This might identify specific people who have made these 'errors'. Instead this is something that should be included in the monthly team meetings. • Accepted and included as an element. • Organogram similar to organisational chart. • Noted and suggested that an item be placed on the meeting agenda to discuss progress of measurements at each NGO meeting.
Please consider the list of elements associated with the component '*human resources*' (2.1 – 2.4 of the accompanying documentation). Can you suggest any other elements that the current framework does not consider?	• Cannot think of anything too add, but did have some comments on some of the indicators and measurements: - In terms of the training opportunities for staff, a useful measurement tool could be the Individual Development Plans which should be designed for each staff member - Another matter is with regards to measuring staff motivation. As opposed to just incentives, structures of support could also be considered. - Just some thoughts which would be practical for my organisation so wanted to share them.)	 • Accepted and included as an indicator. • Accepted and included as an indicator.

	• Managers need to be open to new ideas and new ways of doing things, otherwise, we may end up with databases and people that are under-used and not fulfilling their potential. Therefore, I would add managerial openness and the adoption of new measures (i.e. new ways of doing things).	• The comment about the openness of managers to new ideas and new ways of doing things is recognised and appreciated, but outside of the scope of knowledge sharing.
	• Rewards systems	• Rewards and incentives are discussed in the element *personal satisfaction and commitment*.
	• Some of the outcomes could demonstrate more impact. At present, they seem quite process focused.	• The comment about the outcomes being process focused is recognised and appreciated, but these indicators are generic indicators and can be adapted to the requirements and needs of the specific HIV/AIDS NGO.
Please consider the list of elements associated with the component '*financial resources and administration*' (3.1 – 3.3 of the accompanying documentation). Can you suggest any other elements that the current framework does not consider?	• The process of financial management and administration is important, but more important is the actual availability of funds to support learning and sharing initiatives, therefore an element relating to this should be included.	• Accepted and included as an element.
	• What about independent funding/donations?	• This will be dealt with within the financial management element and specific funding for knowledge sharing has been included as an element.
	• The outcomes are very meeting oriented. Suggestions for specific outcomes demonstrating progress would provide evidence of impact from the initiative.	• The comment about the outcomes being process focused is recognised and appreciated, but these indicators are generic indicators and can be adapted to the requirements and needs of the specific HIV/AIDS NGO.
Please consider the list of elements associated with the component '*communication*'. (4.1 of the accompanying documentation). Can you suggest any other elements that the current framework does not consider?	• This is crucial. • This element only includes internal communication. It should be expanded to include external communication and perhaps broken down further to recognise different approaches to communication and their effectiveness.	• Noted. • The comment and external communication is noted and recognised but the frameworks are focused on intra-organisational knowledge sharing and thus outside the scope of the framework.
	• Informal communications which arise out of all those channels that fall outside the formal channels are very important. Think that counter-knowledge may be acquired unwittingly from unreliable or inaccurate sources such as gossip, lies, exaggeration and partial truths.	• Noted and recognised.
	• It's not clear how the communication channels are used from the framework. The impact factor is indicated by the number of staff who indicate satisfaction but this will mask the methods that they have used. Maybe an opportunity for further research?	• Noted and recognised.

Please consider the list of elements associated with the component '*leadership*'. (5.1 and 5.2 of the accompanying documentation). Can you suggest any other elements that the current framework does not consider?	• In How it can be measured ? - "percent of annual revenue generated from diverse sources" could be specified to percent of annual revenue generated by external sources and percent generated by own fundraising effort . This is important when the sustainability of the organisation is assessed. - Resource mobilisation is similar to what is mentioned in item 3. Think leadership could also be assessed for the way in which they make strategic information available to the organisation. Not sure whether this is relevant in this framework, but in terms of information management I would expect leadership to ensure that the organisation is utilising and sharing information at a strategic level. • This section should include core competencies around leadership and management, the skills and necessary abilities beyond just finance • What about the importance of personal leadership styles within the organisation? • The impact factors are better this time in that they are quantifiable and therefore it's easier to assess the difference that any changes make.	• Accepted and changed made on framework. • Noted and recognised. • The following elements were added which pertains to leadership and management: • Noted and recognised. • Noted
Please consider the list of elements associated with the component '*management systems*'. (6.1 – 6.7 of the accompanying documentation). Can you suggest any other elements that the current framework does not consider?	• A structured risk assessment of all aspects of the organisation could be a valuable indicator for the areas in need of quality improvement. • Managerial leaderships (e.g., leaders such as 'boundary spanners' and technological gatekeepers) could act as a catalyst to fuel learning and unlearning in your framework, and therefore they could play an important role in ensuring the successful incorporation of information technologies or new measures. • This seems thorough in approach with clearly thought through approaches. Again, opportunities to demonstrate the impact of developments/changes would be useful.	• Noted and recognised but outside of the scope of this research. • Noted and recognised. • Noted.
Please consider the list of elements associated with the component '*external relations*'. (7.1 – 7.4 of the accompanying documentation). Can you suggest any other elements that the current framework does not consider?	• Your elements cover the networking activity adequately. In a small NGO practically speaking advocacy and networking are essentially simultaneous activities and have to be analysed to find out where one stops and the other starts. • Under the indicators to measure the boards competence to direct the organisation, I suggest that there should be a field orientation to the actual work that the organisation is involved with.	• Noted. • Noted.

	- In other words and in practical terms, a visit to the community to experience the care of people in their own environment is the most effective way to promote advocacy and information sharing at the top level. - In our organisation the Board of Trustees are considered part of internal structures rather than external, although they then relate directly to the external environment themselves. But as they are responsible for policy decisions, this is an internal function. But this could be specific to our organisation. • Relationship with patients. • It's good to see that the external perspective has been considered. The last two sections indicate review as an impact factor – better to put some specific targets or suggest %age increase in engagement.	 • Noted and recognised. As this framework was developed for the collaborating organisation, no reference was made to patients as they don't deal with patients. • Noted.
Please consider the list of elements associated with the component '*political and legal environment*'. (8.1 and 8.2 of the accompanying documentation). Can you suggest any other elements that the current framework does not consider?	• Indicator; Suggest you could add political/legal and policy changes as a standing item on the governance/management /staff meetings agendas to ensure that it is not overlooked in a busy organisation. • Since many of ecological problems are caused primarily by business activities, looking to the future, many organisations should make great advances in meeting environmental challenges. Therefore, global ecological issues aiming at the satisfaction and good service of NGOs and networks could play an important role.	• Accepted and changed made on framework. • Noted and recognised but no changes made on framework.
Please consider the list of elements associated with the component '*social environment*'. (9.1 of the accompanying documentation). Can you suggest any other elements that the current framework does not consider?	• In the context of rural Limpopo, religion is an aspect of the social environment which should also be considered. It may be assumed to be part of the organisational culture, but it is worth a specific consideration as religion forms such a central part of internal motivation and belief for staff members; even if your organisation is not faith-based, the extent to which staff members are driven by their religion is something which should be considered. Again, not sure if it is relevant here. • Appropriate Space • Could be developed much further. This section is an opportunity to increase the impact of outcomes from several of the other sections as well as demonstrating progress informally. It's a shame to include this all just in one line of the table.	• Noted and recognised but no changes made on framework. • Noted and recognised but no changes made on framework. • More indicators were added.

6.4 Results

Evaluation of the framework has resulted in changes to certain components and elements, but no changes to the knowledge sharing process, confirming that development, based on previous research and empirical work has reached an acceptable point of saturation. It is clear from the feedback, however, that a NGO may want to be more focused on the generic by adapting the framework to suit their needs and the framework is capable of flexing to meet such needs, without altering the structure. This may involve the addition of elements to reflect specific activities, but if the NGO wishes to omit components or elements, justification of this should be sought; otherwise significant gaps may appear in the final analysis.

Having taken into consideration the feedback received regarding the generic framework and process, this section now discusses the analysis of the results that are intended to show the outcome of the evaluation, and to present the final version of the conceptual framework. This section is not intended to be a comprehensive analysis of the NGO but to establish that the framework is usable to a relevant conclusion.

The following section emphasises the results of the evaluation in graphical form using column graphs. The horizontal axis identifies the domains within which each question was asked. The vertical axis shows the number of evaluators who identified the scoring in each domain and the key to the right displays the scores $1 - 4$, one representing the component as vital to the organisation, 2 as being important, 3 as being useful and 4 as being irrelevant to the organisation. For clarity and greater understanding, discussion about each graph is undertaken using % of responses.

Table 6.3 Example of Categorising and Entering Scores for each component

Importance to your organisation			
Vital	Important	Useful	Irrelevant

Figure 6.2 Overall Average Scores
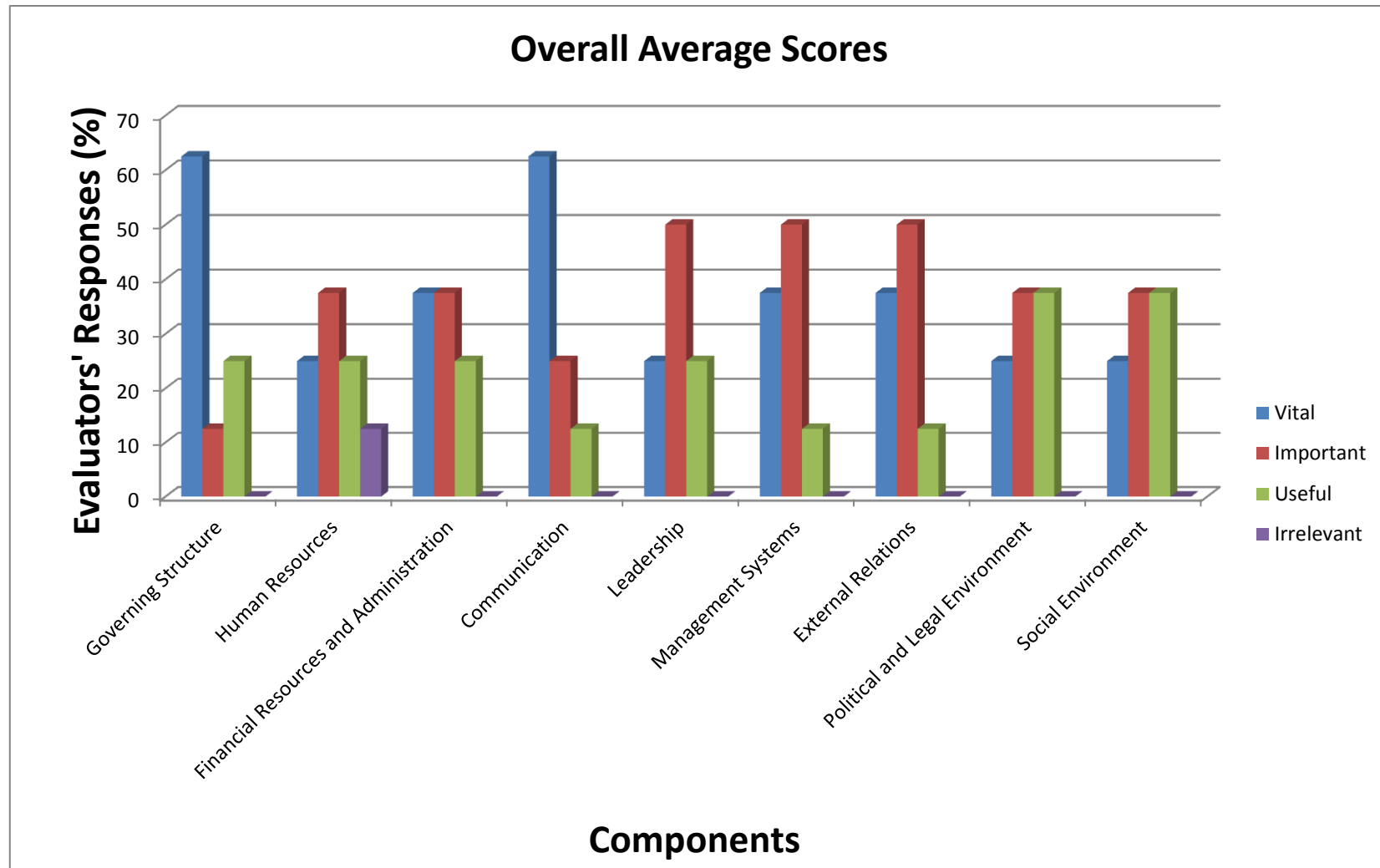
Table 6.4 Overall Scores of Evaluators

Components	Vital	Important	Useful	Irrelevant
Governing Structure	63	13	25	0
Human Resources	25	38	25	13
Financial Resources and Administration	38	38	25	0
Communication	63	25	13	0
Leadership	25	50	25	0
Management Systems	38	50	13	0
External Relations	38	50	13	0
Political and Legal Environment	25	38	38	0
Social Environment	25	38	38	0

Overall, the evaluators' scores on the individual components regarded governing structure and communication as the most vital components for knowledge sharing, both scoring 63%. Only one component was listed as irrelevant, the human resources component. Evaluators listed leadership, management systems and external relations as important factors, each scoring 50%. Surprisingly, evaluators scored social environment as the least vital component in knowledge sharing. Vital components are listed in order as follows:

Governing Structure	63%
Communication	63%
Financial Resources and Administration	38%
Management Systems	38%
External Relations	38%
Human Resources	25%
Leadership	25%
Political and Legal Environment	25%
Social Environment	25%

Exploring the components further, the following graphs identify the overall scores for each Component, with highlights identifying areas that may require improvement. The

following graphs show a comparison between the responses from the HIV/AIDS NGOs and KM Experts.

Figure 6.3 Component: Government Structure
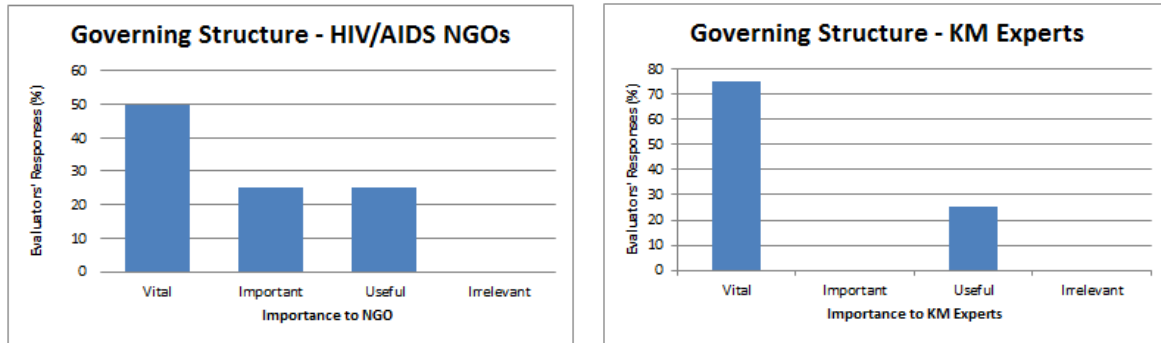
For both HIV/AIDS NGOs and KM Experts, more than 50% of each regarded the Governing Structure of the NGO as vital to the NGO. KM Experts regarded the governing structure as being more vital than the HIV/AIDS NGOs with 75% of KM Experts scoring this component as vital compared to the 50% of the HIV/AIDS NGO experts. For both sets of evaluators, 100% regarded this component as useful, important or vital.

This result indicates that the KM experts place more emphasis on the importance of the governing structure than the HIV/AIDS practitioners. This surprised the researcher as the governing structure in this context refers to the broad vision of the HIV/AIDS NGO and how the employees in the NGO are organised and how they relate to one another. Only half of the HIV/AIDS NGOs practitioners regard this as a vital component yet the way in which the NGO is structured is very important to how information and knowledge is shared with the NGO. In the final version of the framework, after reviewing the comments from the evaluators, the component 'Governing Structure' was divided into 'Strategy' and 'Structures'. Refer to section 5.3. for further clarification.

Figure 6.4 Component: Human Resources
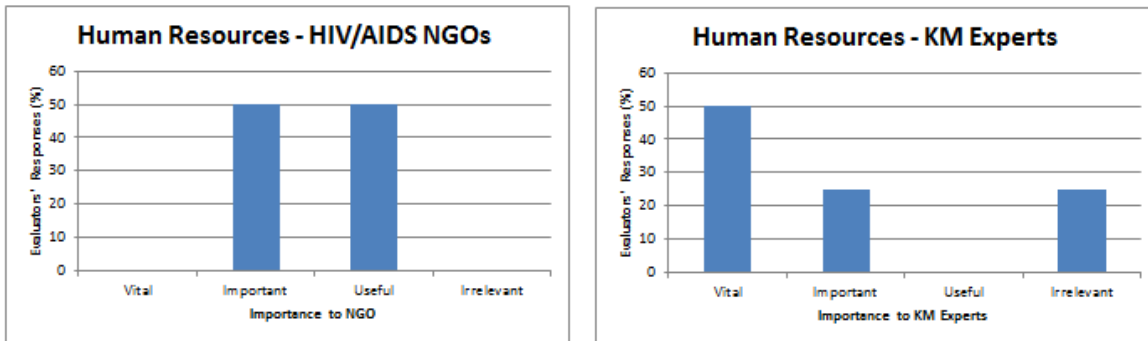
None of the HIV/AIDS NGOs scored human resources as being vital to the organisation. This surprised the researcher as human resources looks after the needs and development of its employees. This is crucial, as it is within this remit, that staff within the NGO, is motivated and satisfied to perform its core functions related to the various phases of the HIV/AIDS life cycle. If the staff's developments needs are met, they are more motivated to respond to the vulnerable people within their community affected and infected by HIV/AIDS.

75% of the KM Experts though regarded this component as vital or important to knowledge sharing within the organisation. A reason why KM Experts scored higher might be because they are more aware of the importance of satisfying the needs and development of its employers. When staff are happy, motivated and committed, they will ultimately give more to the organisation and will not be tempted to work elsewhere.

Human Resources of the HIV/AIDS NGO is therefore seen as an important component and this could be explored further by focussing of the following elements:

- Human Resources Policy
- Staff Performance, Promotion and Development
- Personal Satisfaction and Commitment
- Volunteer Management

Figure 6.5 Component: Financial Resources and Administration
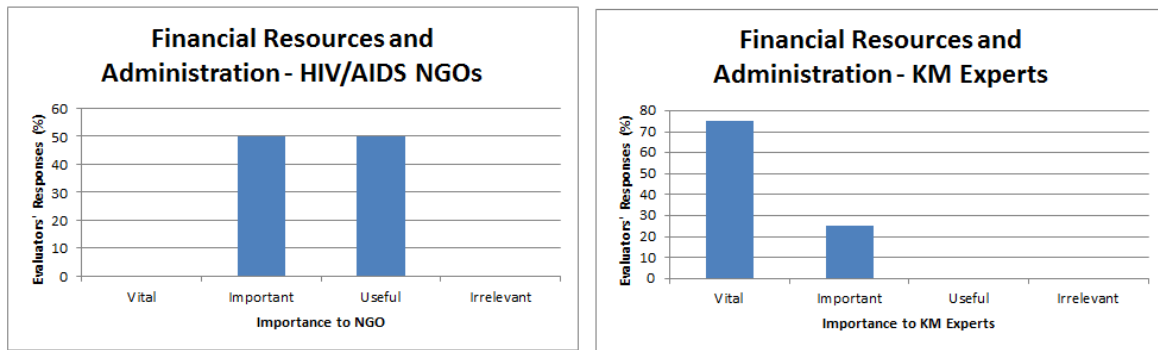
None of the HIV/AIDS NGOs scored financial resources and administration as vital to the organisation in terms of knowledge sharing. This however is in agreement with Barnett and Whiteside (2006). They point out that in the African context; there is a need for NGOs "to strengthen their internal management procedures with reference to planning, programming, budgeting and financial control. There is even a greater need for NGO managers to concentrate on strategic issues of programme scope and external organisational relations". HIV/AIDS NGOs need to put more emphasis on financial control and resources if they want to sustain itself.

KM Experts though see the importance of component, with 75% of the KM experts regarded financial resources and administration as important to knowledge sharing.

Financial Resources and Administration of the HIV/AIDS NGO is an important component and this could be explored further by focussing of the following elements:

- Financial Management and Accounting
- Funding Environment
- Financial Reporting and Accountability

Figure 6.6 Component: Communication
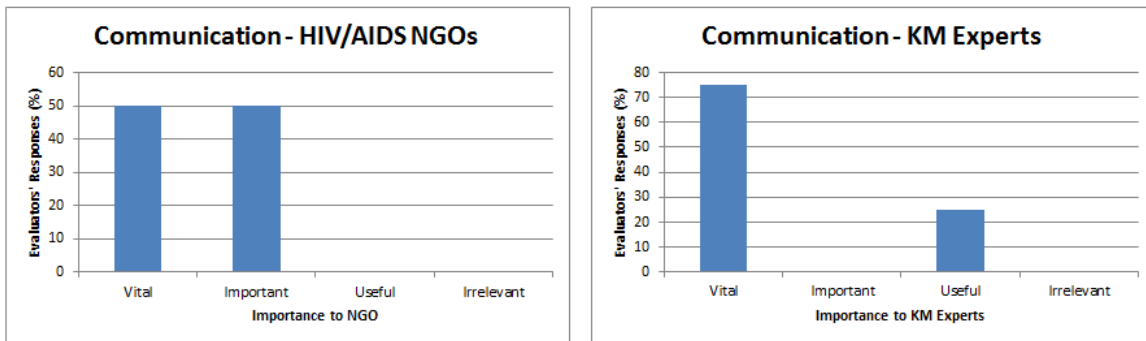
All of the HIV/AIDS NGO scored communication as either vital or important to the HIV/AIDS NGO while 75% of the KM Experts scored this component as vital to the HIV/AIDS NGO ability to share knowledge. It was encouraging to see that HIV/AIDS practitioners see Communication as vital to the NGO. During the initial empirical investigations that the researcher undertook, communication was recognised as a vital component for knowledge sharing yet staff at the NGO felt that it was an area that could be improved. It is encouraging to see that HIV/AIDS managers also regard this as either a vital or important component. The researcher regard this component as one of the most important component for knowledge sharing.

Figure 6.7 Component: Leadership
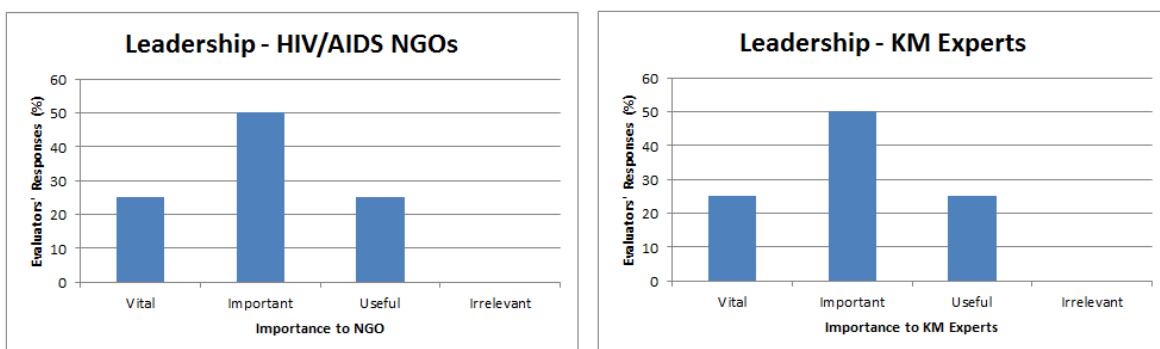
The distribution of scoring amongst the leadership component is quite equally between the HIV/AIDS NGO and KM Experts. Both see leadership as important to the NGO's knowledge sharing.

Leadership is seen as an important component and this could be explored further by focussing of the following elements:

- Transparency and Accountability
- Resource Mobilisation

Figure 6.8 Component: Management Systems
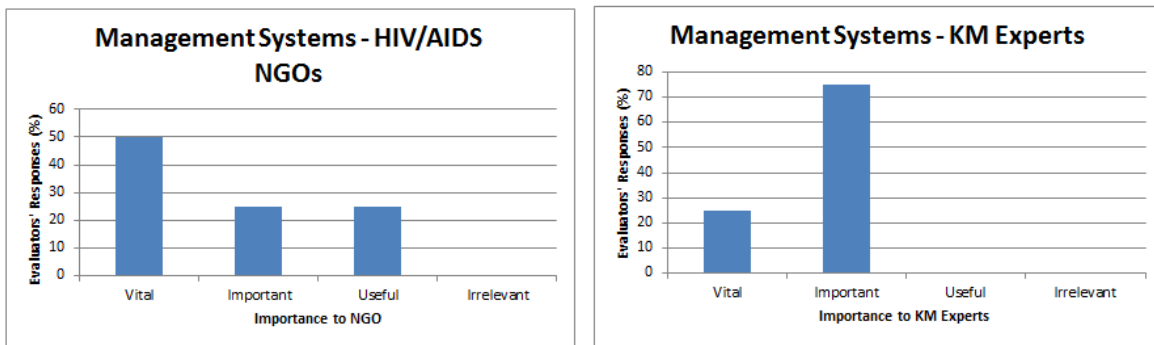
HIV/AIDS NGOs scored higher than the KM experts when scoring management systems with 50% of the KM experts acknowledging that management are vital to the success of knowledge sharing compared with 25% of the KM Experts. There is a high difference between how crucial HIV/AIDS practitioners regard management systems as to how KM experts regard this component. From my experience, KM experts view management systems, especially IT systems as they see technology as a vital enabler of knowledge sharing – it can assist in connecting people with information, and people with each other, but it is not the solution. This might be the reason why KM experts not regard management systems as vital as HIV/AIDS practitioners.

After critical reflection the researcher renamed '*Management systems*' to '*Systems and processes*'. Feedback received from the evaluators confirmed that they did not know what the term management systems implied. '*Systems and processes*' now involved all the systems and processes identified as crucial for the effective sharing of knowledge within the NGO. In the final framework, the term '*Systems and processes*' are used.

Figure 6.9 Component: External Relations
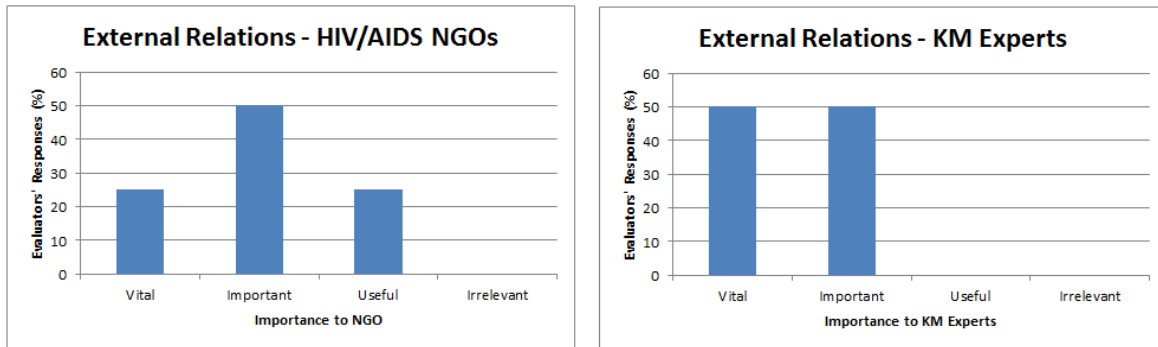
For both HIV/AIDS NGOs and KM Experts, half regarded external relations as important to knowledge sharing for the organisation. 25% of the HIV/AID NGOs see this this component as important while 50% of KM experts regard this component as vital.   The researcher thought that HIV/AIDS practitioners would regard external relations as more important to the NGO. This was a surprising result for the researcher.

External Relations is seen as an important component and this could be explored further by focussing of the following elements:

- Partnerships with other HIV/AIDS NGOs and networks
- Relationship with government authorities
- Relationships with donors

Figure 6.10 Component: Political and Legal Environment
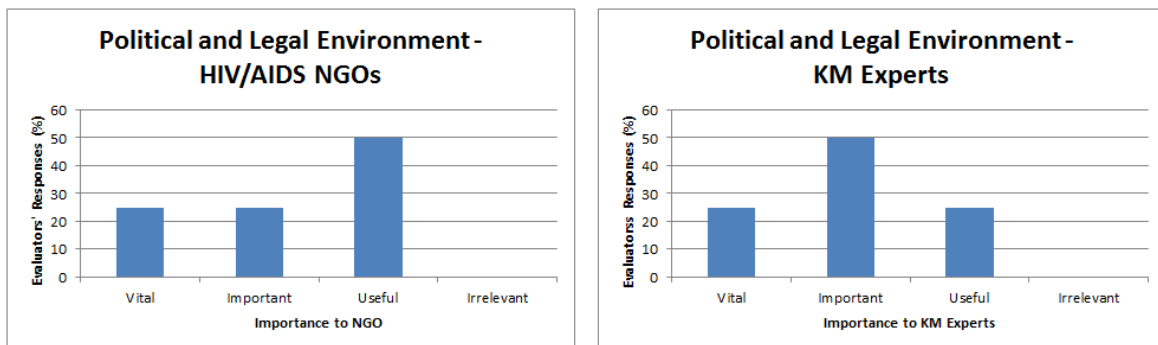
Only 25% of HIV/AIDS NGOs and KM Experts regard the political and legal environment as vital to the organisation when it comes to knowledge sharing. The evaluators scored 25% for important and half the HIV/AIDS NGOs regard the political and legal environment as useful when it comes to knowledge sharing. 50% of the KM Experts regard the political and legal environment as important with a further 25% seen it as being useful.

Although KM experts placed more importance on this component, surprisingly the HIV/AIDS practitioners did not. One reason for this might be that all HIV/AIDS NGO practitioners were from South Africa and as such is aware of the political and legal environment. The HIV/AIDS KM experts were from 4 different countries and as such would place more importance on this component.

Political and Legal Environment are seen as an important component and this could be explored further by focussing of the following elements:

- Laws and Policies
- Legal restrictions

Figure 6.11 Component: Social Environment
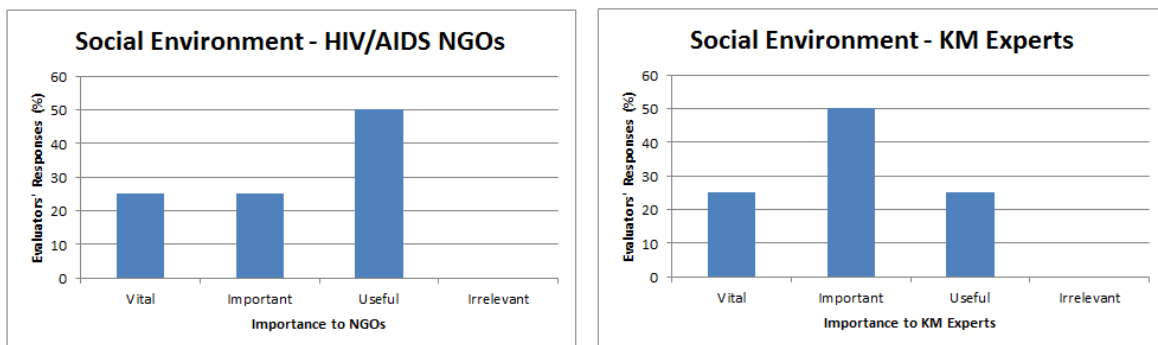
Only 25% of HIV/AIDS NGOs and KM Experts regard the social environment as vital to the organisation when it comes to knowledge sharing. The evaluators scored 25% for important and half the HIV/AIDS NGOs regard the social environment as useful when it

comes to knowledge sharing. 50% of the KM Experts regard the social environment as important with a further 25% seen it as being useful.

This result is similar to the previous result, '*Political Environment'* and the same reasoning applies.

The social environment is seen as an important component and this could be explored further by focussing of the following element:

- Culture

Overall feedback in terms of comprehensiveness, clarity, conciseness and correctness of the proposed framework.

When asked about whether the **purpose of the framework was clear**, 87.5% of the evaluators thought that the framework was clear. 100% of the evaluators from HIV/AIDS NGOs thought that the framework was clear.

Table 6.5 Specific comments regarding the purpose of the framework:

Evaluators feedback	Researcher's response
the detail of the matrix is confusing in what it is trying to achieve e.g. the competencies	competencies were updated according to feedback received from previous section
The column "core competencies" is not clear to me. For example: "The mission and vision statements are available in writing and communicated to all staff." I wonder if this is a competence. Maybe you can use a different term?	The core competences column was removed as the researcher felt this column was not needed.

When asked whether there **were any components that have not been addressed in the framework**, 37.5% of the evaluators said that no components were missing.

Table 6.6 Specific comments about incompleteness of the framework:

Evaluators feedback	Researcher's response
Obsolete knowledge, for example, managerial problems that employees may not want to express directly such as over-authoritarian managerial styles, lack of trust, and other dysfunctional aspects of an organization. It is appropriate to note here that most prior organizational research has described unlearning as resulting from some form of destabilizations of old learning. Therefore, organizational design features (e.g., teamwork or cross-department specialist teams) may help the avoidance of obsolete or inappropriate entrenched behaviours and result in the enactment of new or modified organizational routines.	Noted and updated.
It reminds me of the Kolb learning cycle in style. I wasn't clear at first why sections 3 and 4 had the same name – maybe better to separate them to provide greater clarity on their individual sense of purpose.	Noted and updated.
I think that you have listed too many components – or it is better to say, too many elements that characterise these components. I can understand the effort of not neglecting important factors, but the more components you add the more difficult it can be to treat and measure them.	The researcher disagrees, as the most relevant elements were included and these are crucial for successful knowledge sharing.

When asked whether the evaluators **would use this framework to assess your organisation's readiness to use knowledge** which is located elsewhere for the purpose of providing a better support to potential and existing HIV/AIDS patients, 100% of the evaluators said they would.

Table 6.7 Specific comments about usefulness of the framework:

Evaluators feedback	Researcher's response
Some of the indicators would not be as relevant to some organisations as others and may need to be reworked only slightly. For example, the requirement of an 'HR manual' or just 'workshops on the HR policies'… But the general framework would definitely be useful.	Noted.
I would consider this framework but with adjustments. It does not feel generic enough	Noted.

When asked to comment on how they feel this research can better help HIV/AIDS NGOs realise the potential of the knowledge they own and the knowledge owned by other NGOs related to the prevention, treatment and care of people living with and affected by HIV/AIDS in South Africa, the following comments were received from the HIV/AIDS NGO practitioners:

- "You have made some good suggestions as to how to manage the knowledge HIV/AIDS NGOs own which will stimulate the innovation process so HIV/AIDS NGOs can implement new knowledge structures. This framework also draws NGO managers´ attention to a wide range of practices that they might adopt to retain and create valuable knowledge."

- "Provides a visualisation of method and approach, which gives a cross-cultural way of working. Indicates the types of engagement and reduces the chance of overlap and redundancy through clear planning."

- "Disseminate the findings of the research through different forums. Implement a pilot project and share lessons learnt – that will definitely demonstrate the effectiveness of the framework and AFSA is more than willing to be part of that. Also, from the framework you can develop an index for effective HIV/AIDS NGOs."

These comments all indicate that this framework is relevant and useful and can be used with a HIV/AIDS NGO for the purpose of sharing knowledge within the organisation.

6.5   Quality of the findings derived from data evaluation

Once the knowledge sharing framework has been evaluated and a 'final' framework has been developed, the researcher will have to consider how 'good' the findings that emerged from the final framework actually are. There is a wide variety of views of what makes a good conclusion. The researcher will adhere to the "critical realist" tradition described by Miles and Huberman (2013, p 311). This means that the quality of the findings of this research will be measured by Miles and Huberman (2013) issues described as:

i.   *The objectivity/confirmability of the qualitative work*
     This domain is often labelled as "external reliability" and is measured in relation to the results which are relatively neutral and free from unacknowledged researcher

biases. The findings must not depend on the subjects involved or the conditions of the research.

The researcher has explicitly described in chapter 4 the methods and procedures for this research. An introduction was given in chapter 1 to provide the reader with the "complete picture" of the situation and the background information which led to the research. Chapter 4 also highlighted how the framework was developed and evaluated. Chapter 5 also clearly shows how the conclusions (or rather the developed framework) were formed with clear links from the literature review. All these issues are intended to make the findings of this research objective and confirmable so that it is possible for the work reported in this thesis to be replicated.

ii. *The reliability/dependability/auditability of the qualitative work*

This is measured by analysing whether the process of the research was consistent across the evaluators and whether the issues of quality and integrity were addressed. The research problem and research questions were made clear at the beginning of the thesis. The researcher intended to research the problem of knowledge sharing in HIV/AIDS NGOs in South Africa. The researcher's role and status was made clear to the participants and evaluators when data was collected and the framework was reviewed. Data were collected across a range of appropriate settings at the beginning of the research to establish the need for such a knowledge sharing framework. A number of participants from both the HIV/AIDS NGO field as well as internationally recognised KM experts were involved to review the proposed knowledge sharing framework. All these issues are intended to make the findings of this research reliable and dependable so that it is possible for the work reported in this dissertation to be replicated.

iii. *The internal validity/credibility/authenticity of the qualitative work*

This is studied by asking whether the findings of the researcher make sense and whether they are credible to the people involved in the research and to the reader.

The research problems were set out very early in the research. As mentioned in chapter 4, triangulation of methods and data sources was used to help provide credible results. Chapter 5 shows how the data that emerged from the literature review, were linked to form the knowledge sharing framework. The findings from the empirical research and the findings from evaluation were made clear early on in this chapter. Areas of uncertainties have been identified. The research problems were set out clearly in research. An initial empirical investigation early on in the research established the need for knowledge sharing in HIV/AIDS NGOs in South Africa. This led to the development of a knowledge sharing framework which was then evaluated by both HIV/AIDS NGOs management and KM experts. All these issues are intended to make the findings of this research internally valid, credible and authentic so that it is possible for the work reported in this dissertation to be replicated.

iv.   *The external validity/transferability/fittingness of the qualitative work*

This issue is analysed by judging whether the proposed framework have any validity beyond the scope of the HIV/AIDS NGO involved and whether these findings are transferable to other contexts, and to a certain extent, generalised.

The HIV/AIDS NGOs evaluators involved were from four diverse organisations that include a HIV/AIDS funding organisation, a hospice involved in caring for HIV/AIDS infected patients, a healthcare NGO involved with community care involving HIV/AIDS patients and a medical association dealing with HIV/AIDS patients. As a consequence different types of NGOs have been targeted to take part in the evaluation of the proposed framework. This suggests that the proposed framework is likely to achieve reasonable levels of success in other HIV/AIDS NGOs in South Africa.

v.   *The utilisation/applicability/action Orientation of the qualitative work*

This is studied by exploring the benefits that this research brought to the HIV/AIDS NGOs involved and to other HIV/AIDS NGOs in South Africa. The work reported in this research will be "pragmatically valid" only if it leads those decision makers and other individuals that seek information on knowledge sharing in this report to more intelligent action.

Research of this nature is high in subjectivity and given the researcher's involvement as a participant observer, it is essential to remain aware and where possible strive to achieve some level of objectivity and reliability of the research overall and in an organisational context. Triangulation provides a recognised and useful approach to reduce ambiguity and increase reliability, for example by a multi method approach, of which the testing of the framework forms one part. Previous discussion about the overall research design in chapter 4 emphasises the importance of triangulation for this entire piece of research and in keeping with a recursive approach, this is repeated again at this level.

This approach to testing of the framework meets the requirements of triangulation, incorporating Denzin's (2011) method, investigator and data triangulation. Data triangulation includes literature and fieldwork based at The AIDS Foundation of South Africa and includes the researcher's own surveys conducted with HIV/AIDS NGOs in South Africa during 2010 and peer reviews all in the development of the framework.

The requirements of method triangulation have been met at the development stage through primary and secondary research and fieldwork conducted in South Africa, peer review as indicated previously, progressing to this stage of application and evaluation of the conceptual framework at The AIDS Foundation of South Africa.

Investigator triangulation includes the use of external evaluators ensuring the feasibility of the conceptual framework. At the evaluation stage the process within which the actual

evaluation of the framework is undertaken requires several different evaluators to interpret and comment on the same approach in action, thus avoiding personal bias.

The next section will discuss the ethical issues considered for this research project. The findings of this research are intellectually and physically accessible to its potential users and a copy of the findings will also be sent to the evaluators once the thesis has been submitted. This framework will help HIV/AIDS NGOs in knowledge sharing within the NGO and once this has been achieved it will make it easier to share knowledge with other HIV/AIDS NGOs.

6.6   Ethical issues considered

Any qualitative research is surrounded by a wide range of moral and ethical questions. There are no well-formulated set of ethical guidelines to be followed. However, while conducting the empirical research, validating the framework and reporting the findings, the researcher followed the set of ethical principles set out by Miles and Huberman (2013).

These principles include:

i. *Worthiness of the project*

Initial empirical research established the need for a knowledge sharing framework for HIV/AIDS NGOs in South Africa. A literature search indicated that there were no framework in existence which would guide the HIV/AIDS NGO through the knowledge sharing process and assist in the identification of the relevant components needed at each phase of this process.

ii. *Competence*

This refers to whether the researcher was prepared to research and be supervised. This research was supervised from the beginning stages, right through the development, evaluation and final stages.

iii. *Informed Consent*

The participants were always fully aware of the nature of the project they participated in.

iv. *Benefits, Costs and Reciprocity*

This refers to what each participant of the research gained from having taken part in this project. During the evaluation stage especially, the researcher outlined clearly the benefits to this research for the participant.

v. *Harm and Risk*

The researcher has not carried out any action that could result in harm to the organisations or the participants involved.

vi. *Honesty and Trust (deception)*

The researcher was honest with the organisations and participants during each of the stages of the project. Every participant was aware of the researcher's role as a postgraduate student and lecturer at Coventry University and also knew that the collaboration was of benefit for both parties involved.

vii. *Privacy, Confidentiality and Anonymity*

As this research focused on the sharing of knowledge within the HIV/AIDS NGO, there was no need to infringe the privacy of individuals or the NGO. No personal data was collected during initial empirical investigation or during the evaluation process. During the evaluation process, the following was included before the evaluator started the process:

"By providing feedback and returning this form you acknowledge your consent to participation in this study. Your responses as well as your personal identity will remain completely confidential. On completion of the thesis, a report outlining the overall findings will be sent to your organisation. The report will

> *not identify any individual or their responses. Once the thesis has been submitted (November 2013), funding will be sought for future collaborations in this area with your organisation."*

6.7 Summary of the key issues reported in this chapter

This chapter has described in detail how the framework was evaluated. It discussed the approach taken for evaluation and how the responses from the evaluators were analysed. It also considered the quality of the findings as well as the ethical issues while the research was taking place.

The method of 'scoring' the importance of each component was kept to a simple scale to consider the level of importance that an evaluator would place on a specific component. By comparing scores, it was possible to expose an area that required improvement if knowledge sharing is to be successful. During the course of evaluation it became clear that the knowledge sharing framework is flexible enough to facilitate a HIV/AIDS NGO's focus on specific components only or add to the list of elements if there was a particular problem area identified.

Evaluation of the framework was undertaken in two phases using different sets of evaluators. Phase One was conducted by the collaborator, The AIDS Foundation of South Africa while Phase Two was conducted with senior members of HIV/AIDS NGOs in South Africa and KM experts. There were no major changes to the components and elements and structure of the generic framework, confirming that the cycle of development and improvement, with previous critical review had reached a reasonable point of saturation.

Triangulation was explored further, and drawing on Denzin (2011), the four methods of triangulation were reconsidered against the development, critical reflection and

improvement stage as well as evaluation of the framework, confirming that the requirements of method, investigator and data triangulation were met.

The approach to analysis of information gathered by the evaluators was a presentation and evaluation of results. This was not intended to be a comprehensive analysis of the HIV/AIDS NGO, but to establish that the framework was useable to a relevant conclusion. This did prove to be the case, however as with many exercises of this nature and through critical reflection further improvements can be considered. This is discussed further in the next chapter. The quality of the findings and ethical issues were also considered in this chapter.

The next and final chapter will discuss the main issues that emerged from this research and also analyse the areas that will benefit from further research.

CHAPTER 7: CONCLUSION AND RECOMMENDATIONS

The previous chapters presented and discussed the development and evaluation of the conceptual framework. It identified the key factors for intra-organisational knowledge sharing in HIV/AIDS NGOs in South Africa and proposed a knowledge sharing infrastructure and method for implementation based on a knowledge sharing process.

This chapter draws the research to a close by presenting the overall conclusions of the research. The chapter discusses the contribution of the research to both the academic research literature and to practitioners, and outlines the implications of the research. It also evaluates the research against the original objectives and concludes by identifying limitations of the research and discussing potential areas for future research in this field.

7.1 Summary of the research

This research set out to deepen understanding about the dynamics of intra-organisational knowledge sharing by investigating the factors which influence knowledge sharing in HIV/AIDS NGOs in South Africa and develop a framework to conceptualise these factors at an organisational, micro and macro level. The research was conducted involving a collaborator, The AIDS Foundation of South Africa. This HIV/AIDS NGO is based in KwaZulu-Natal, the province in South Africa hardest hit by the HIV/AIDS epidemic.

The starting point of this research was the identification of a need for knowledge sharing amongst HIV/AIDS NGOs in South Africa. An initial empirical review amongst various

HIV/AIDS NGOs in South Africa suggested that organisations work individually to address the problems caused by the epidemic and that there was a desire and a need to work together and learn from one another. It was further established that processes within the HIV/AIDS NGO needed to be standardised before effective knowledge sharing between HIV/AIDS NGOs could take place.

This lead to the impetus for the formulation of a research problem:

> ***By developing a framework for knowledge sharing that considers a number of factors from the various environments in which it operates, knowledge sharing in HIV/AIDS NGOs in South Africa can be improved.***

The review of the literature suggested that no framework exists which conceptualises intra-organisational knowledge sharing in such a manner. A number of additional research questions and a conceptual framework were derived from the analysis of the main research problem. The framework was exposed to critique from senior management within the South African HIV/AIDS NGO community as well as a team of internationally recognised experts in the field of knowledge management which led to the production of a final framework.

This chapter draws the research to a close by presenting the overall conclusions of the research and is presented in four main sections:

- Section 7.2 discusses the research journey
- Section 7.3 discusses the researcher's contributions to the body of knowledge and the implications.
- Section 7.4 discusses how the research questions were answered.
- Section 7.5 discusses the limitations to the research
- Section 7.6 discusses further research opportunities which resulted from this research.

7.2   A summary of the research journey

The purpose of phase one of the study was to refine the context of the research. In August 2008, after an initial literature review, the researcher visited two HIV/AIDS NGOs in South Africa. The purpose of these visits was to gauge the necessity for knowledge sharing in HIV/AIDS NGOs in South Africa; to identify some of the issues regarding knowledge sharing; and to identify some of the elements that should be considered in a knowledge sharing framework. The researcher then undertook an extensive review of the literature to establish that there was no single existing framework that addresses knowledge sharing in HIV/AIDS NGOs in South Africa and to highlight useful elements and concepts that ought to be in the framework being developed. At the end of phase one, the researcher had a clear idea of the context in which knowledge sharing problems in HIV/AIDS NGOs have arisen and how knowledge sharing have been addressed in these areas. The researcher also understood the challenges faced in these areas.

The second phase of the research started in September 2009. Based on the literature review the researcher set about to develop a structure for the proposed framework. The structure that the researcher eventually adopted (see Figure 5.1) focused on three areas; the knowledge sharing components needed in a HIV/AIDS NGO for effective intra-organisational knowledge sharing, the development of a knowledge sharing infrastructure that identifies the key components and indicators in HIV/AIDS to be present in the NGO for effective knowledge sharing to take place and a method for implementation based on a knowledge sharing process. For each phase and subsequent steps, components and elements were identified and mapped back onto the knowledge sharing process to show the necessary support that should be in place in the NGO to support the step. This initial conceptual framework took several months to complete. The researcher visited AFSA halfway through this phase, in August 2011. The purpose of this visit was to establish the technical, motivation, communication and power dynamics within the NGO as these were areas which the researcher was unclear about. (See Appendix 3 for the interview questions).

The development of the initial framework went through several iterations before an initial version (see section 5.2) was established. This concluded phase two of the research.

Phase three of the research started in January 2013 when a senior manager of AFSA was asked to evaluate the initial version of the framework. He was asked for his input in improving the framework and secondly, was asked to comment on the comprehensiveness, clarity, conciseness and correctness of the framework within AFSA. See Appendix 4 and 5 for documentation that was sent to the evaluator along with the proposed framework. AFSA was mainly positive about the framework and only commented on the usefulness of several elements. The initial framework was modified, refined and extended based on the ideas that were stimulated by the evaluators' response.

In May 2013, this revised framework was sent to three HIV/AIDS NGO practitioners and five internationally recognised knowledge management experts for further evaluation. Again, the evaluator was asked to critique the framework in terms of the evaluation criteria (comprehensiveness, clarity, conciseness and correctness). The purpose of this evaluation was two-fold. The first part of the evaluation document asks each evaluator to comment against each component. It also asks each evaluator for specific comments for each component and the list of elements. The second part of the evaluation document asked for feedback on comprehensiveness, clarity, conciseness and correctness of the proposed framework. The conceptual framework was exposed to critique to address the subjectivity in the interpretation of results from the literature and empirical research. The results from this process allowed for further refinement of the framework. The evaluators' responses were recorded (see Table 6.2) and provided responses to scaled questions and open-ended questions. The tables were then used in creating an analysis of responses. This document contained responses grouped by corresponding questionnaire items. For each questionnaire item, all comments and critiques were considered, reviewed, and evaluated as a basis for organising them. Responses for an item were first categorised into two groups: (1) to be considered in framework revision (2) beyond the research boundaries. Comments in the first group were further classified into three categories: (1) concerns that were repeated

and/or seemed to be of major importance; (2) concerns that were not so frequent and/or as major, and; (3) concerns that occurred infrequently and/or seemed less critical.

Evaluation of the framework has resulted in changes to certain components and elements, but no changes to the knowledge sharing process, confirming that development, based on previous research and empirical work has reached an acceptable point of saturation. The specific changes are discussed in section 5.3 of this thesis which resulted in the final version of the framework (see Figure 5.7, Figure 5.8 and Table 5.21).

A summary of the research journey is shown in Figure 7.1.
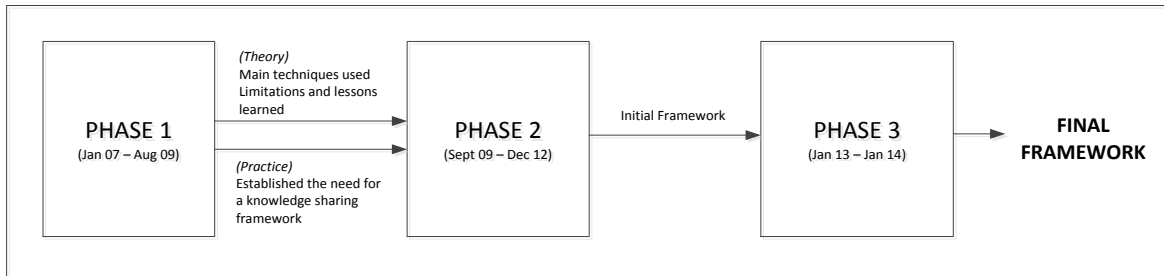
Figure 7.1 Summary of Research Journey

7.3   Contributions and implications

This research stemmed from the identification of a number of gaps in the existing literature. Notably, the literature review revealed limited research relating to the practice of knowledge sharing within HIV/AIDS NGOs, and that even less had been undertaken at an intra-organisational level.

7.3.1 Research contributions and implications

The main contributions to the body of knowledge in the knowledge management domain made by the research fall into the following areas:

i. The research has raised awareness in HIV/AIDS organisations in South Africa of the importance of sharing and managing knowledge resources within the organisation in order to better serve the communities that they are involved with and the people directly influenced by the activities that are performed within these communities.

ii. The research has provided a solution which has the potential to improve the sharing of knowledge and resources within the HIV/AIDS NGO. A conceptual framework has been developed, informed by the relevant literature on knowledge management, NGO management and healthcare which address knowledge sharing in a HIV/AIDS NGO by presenting nine core components needed for effective and efficient knowledge sharing to take place within the HIV/AIDS NGO.

The framework consists of three parts, all of which were developed by the researcher:

- A description of knowledge sharing components required in a HIV/AIDS NGO to support intra-organisational knowledge sharing.
- A further expansion of each component by identifying NGO elements required to contribute to the effectiveness of knowledge sharing and suggests possible indicators which can be used to measure these components against.
- A method for implementation based on a knowledge sharing process. This knowledge sharing process is mapped onto the HIV/AIDS environment to show in which environment each of the phases resides. For each phase and subsequent steps, components and elements are identified and mapped back onto the knowledge sharing process to show the necessary support that should already be in place in the NGO to support the step.

This unique and original framework was exposed to critique before a final version was produced.

iii.   The research has addressed an area where very little has been done and which requires urgent attention given the scale of the HIV/AIDS epidemic in South Africa. Existing approaches to intra-organisational knowledge sharing have been studied to understand their applicability in the SA HIV/AIDS context. It has been found that these approaches only consider one aspect of the organisation and do not consider a holistic view of the organisation, which the proposed framework addresses.

iv.   It successfully challenge existing knowledge sharing frameworks and show why these frameworks are not applicable to the context in which this research was carried out. Research demonstrated that whilst there are frameworks that can support knowledge sharing, there are none that assist in particular HIV/AIDS NGOs in South Africa in supporting knowledge sharing.

v.   It investigates knowledge sharing in the NGO sector context. While the importance of knowledge sharing to the sector has been recognised for some time (Lewis, 2003; Lewis, 2006), this research represents one of only a few that investigate the phenomenon in the HIV/AIDS NGO South African context.

vi.   The research has been the start of a process of transferring expertise in the generation management and sharing of knowledge from an organisational context to the NGO context in South Africa, in particular the HIV/AIDS NGO context, thus offering the research community new avenues for collaborations which the researcher is planning to lead on completion of this study.

7.3.2 Practitioner contributions and implications

The development of the conceptual framework, together with the detailed research findings, provide an integrated framework that may be used by practitioners to support and guide intra-organisational knowledge sharing in the HIV/AIDS NGO context. The framework

can be used as a blue-print, or check-list, in considering aspects of the collaboration. For example, prior to the commencement of intra-organisational collaboration, specific emphasis should be given to maximising culture development within the NGO through deliberate consideration regarding the trust, leadership and motivation. Early attention to the nine factors identified within the framework will help HIV/AIDS NGOs and intra-organisational team leaders to maximise the opportunities for knowledge sharing to occur.

7.4   Answering the Research Questions

The researcher believes that the framework developed in chapter 5 has fulfilled both the immediate and underlying intent of this research. The following sections show how the research questions were answered.

The secondary research questions outlined in chapter 1 are:

Primary Research Questions:

RQ-1: What are the key stages for effective knowledge sharing in HIV/AIDS NGOs in South Africa?

After the main focus of the research was established, the researcher reviewed the relevant knowledge management and knowledge sharing literature to establish the key stages for effective knowledge sharing. The main focus of the review was in the areas healthcare and NGOs. Very few studies focused on effective knowledge sharing within the NGO and the focus was moved to incorporate processes within the management of NGOs. Several of these frameworks are theoretical and have yet to be considered through the gathering of empirical data. The frameworks presented address many factors and dimensions of knowledge sharing, however none of the current knowledge sharing frameworks adequately provide for the complexities of sharing within and amongst HIV/AIDS NGOs, where

sharing is made increasingly complex due to different organisational cultures, structures and goals of the organisation. *(objective 1)*

During the empirical review performed at the collaborating institution, the researcher also identified the barriers to knowledge sharing and ensured that the key stages within the knowledge sharing process have mechanisms in place to address those identified barriers. *(objectives 3 and 4)*

During the evaluation stage, the collaborator and subsequently the various evaluators were provided with a diagram which identifies these stages and asked for their input on these stages. *(objectives 4 and 5)* All were happy with the stages and agreed that this could represent a possible method for knowledge sharing implementation. This part of the knowledge sharing framework, which represent an original contribution by the researcher can be found in figure 5.9 and figure 5.16 (with sub stages) and discussion about the identified stages can be found in section 5.4. The main stages identified by the researcher for effective knowledge sharing within HIV/AIDS NGOs, and validated by HIV/AIDS practitioners and KM experts are:

1. *Internal Knowledge Assessment*
2. *External Knowledge Identification*
3. *Knowledge Utilisation*
4. *Knowledge Evaluation*
5. *Knowledge Sustainability*

Figure 7.2 shows which objectives contributed to the answering of this research question and what the original contribution of the researcher was.

Figure 7.2 How research question 1 was addressed in the thesis

RQ-2: How does the HIV/AIDS environment impact on knowledge sharing in HIV/AIDS NGOs in South Africa? i.e. What are the components and elements and core competences which hinder or contribute to successful knowledge sharing in HIV/AIDS NGOs in South Africa?

After the main focus of the research was established, the researcher reviewed the relevant literature to establish what constitutes the HIV/AIDS environment. *(objective 2)*   Three main environments were identified:

- *Internal Environment* which refers to the physical opportunity for formal and informal interaction to support explicit and tacit knowledge sharing.
- *Micro Environment* refers to factors in the NGO's immediate area of operations that affect its performance.
- *Macro Environment* refers to the major external and uncontrollable factors that influences the NGO's decision making and affect the NGO's performance and strategies.

From the literature the researcher also identified knowledge sharing components which are part of this underlying environment. These components are documented in Table 5.1. *(objective 1)*

During the empirical review performed at the collaborating institution, the researcher also observed the environment in which the collaborating institution exists to establish whether similar or different environments exists and formulated them, together with identified elements into the proposed framework. *(objectives 3 and 4).*

During the evaluation stage, the collaborator and subsequently the various evaluators were provided with a document identifying the HIV/AIDS environment, components and underlying elements diagram *(objective 5).*   Their comments were collated (see Table 6.2) and a final version of the framework was produced, incorporating their comments to produce this final framework.

This part of the knowledge sharing framework, which represent an original contribution by the researcher can be found in figure 5.7 and figure 5.8 and discussion about the identified environment, components and indicators can be found in section 5.3.

Figure 7.3 shows which objectives contributed to the answering of this research question and what the original contribution of the research was.
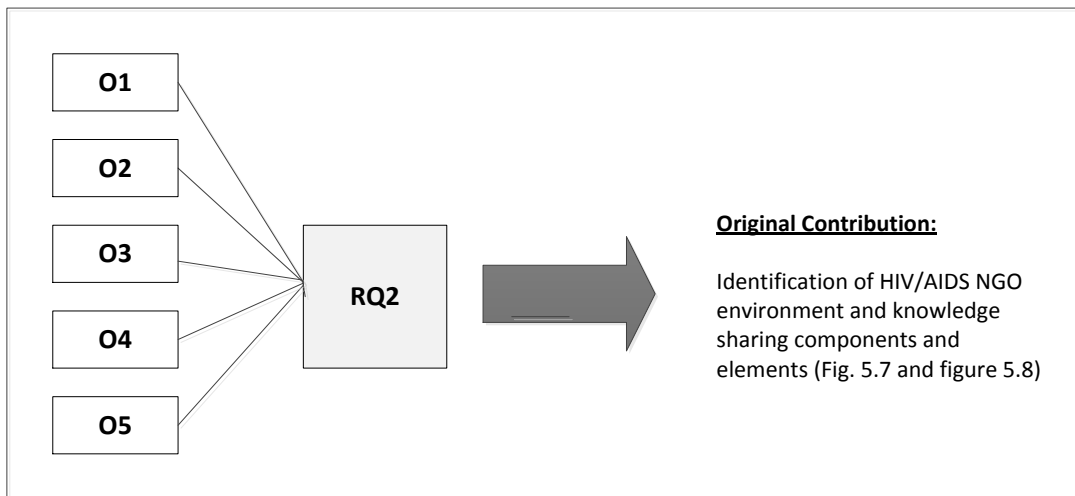
Figure 7.3 How research question 2 was addressed in the thesis

RQ-3: What are the key indicators for each component and how can these be measured?

After the main focus of the research was established, the researcher reviewed the relevant literature in the areas of healthcare and HIV/AIDS to establish suitable indicators for each identified knowledge sharing component. *(objective 2)*

During the evaluation stage, the collaborator and subsequently the various evaluators were provided with a document identifying the HIV/AIDS components and underlying elements diagram, together with relevant indicators *(objectives 4 and 5)*. Their comments were collated (see Table 6.2) and a final version of the framework was produced which incorporated these comments.

This part of the knowledge sharing framework, which represent an original contribution by the researcher can be found in Table 5.21 and discussion about the identified indicators can be found in section 5.3.

Figure 7.4 shows which objectives contributed to the answering of this research question and what the original contribution of the researcher was.
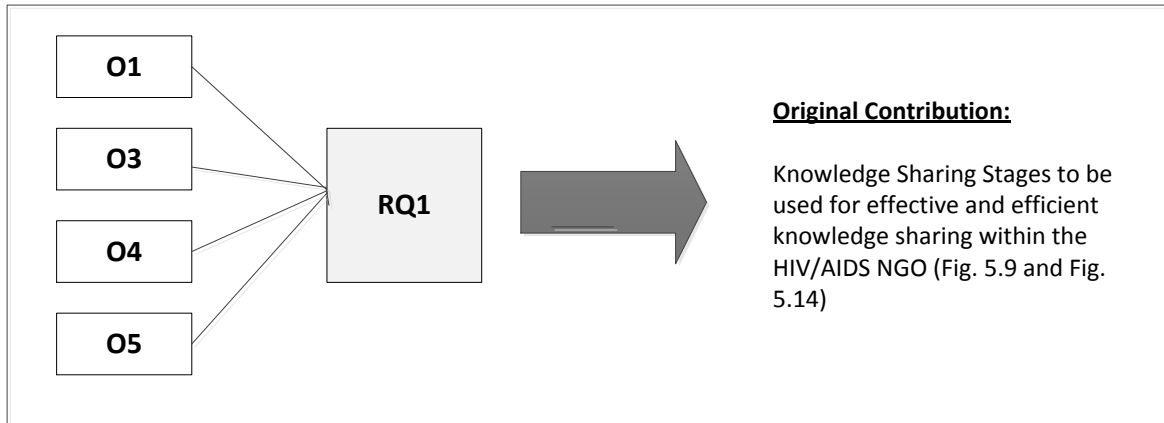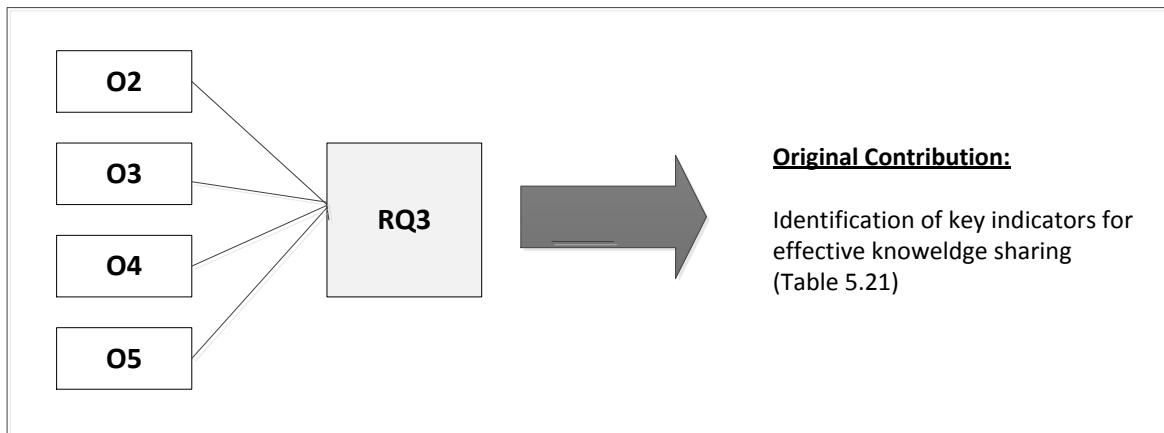

Figure 7.4 How research question 3 was addressed in the thesis

Table 7.1 shows how the secondary research questions were addressed, using the main sources of input.

Table 7.1 How the secondary research questions were addressed.

Secondary research question	Sources that contribute to the answer
RQ1	Literature Review, Fieldwork
RQ2	Literature Review, Fieldwork
RQ3	Literature Review, Fieldwork

Dealing with the main research question:

The main research question had been defined in chapter 1 as:

"How can knowledge sharing be improved in HIV/AIDS non-government organisations in South Africa?"

By answering the secondary research questions the primary research questions were answered. A knowledge sharing framework was developed to address the main criticisms of previous frameworks. This conceptual framework is underpinned by theory, empirical work, critical reflection and reasoning undertaken throughout the research and demonstrates a significant contribution to knowledge. Empirical work derived from research undertaken with The AIDS Foundation of South Africa and exposure to critique through conferences, a book chapter and discussion, and separate independent testing with practitioners and knowledge management experts. Theory is referred to in various contexts resulting in a pluralistic theoretical underpinning based on management theory, structure, culture, and communication.

The conceptual framework encapsulates the main concepts drawn from the literature and focus on 3 key areas:

   i.   The knowledge sharing components needed in a HIV/AIDS NGO for effective intra-organisational knowledge sharing.

  ii.   The development of a knowledge sharing infrastructure that identifies the key components and indicators in HIV/AIDS to be present in the NGO for effective knowledge sharing to take place

 iii.   A method for implementation based on a knowledge sharing process. It will also show a mapping onto the HIV/AIDS environment. For each phase and subsequent steps, components and elements are identified and mapped back onto the knowledge sharing process to show the necessary support that should already be in place in the NGO to support the step.

The conceptual framework was exposed to critique using a using a development – critique – improvement cycle. The framework was exposed to critique from senior management within the South African HIV/AIDS NGO community as well as a team of internationally recognised experts in the field of knowledge management. All changes to the framework were identified and incorporated into a revised framework. The revised framework was presented, with full justification for the inclusion of all elements, all of which were theoretically and/or empirically underpinned.

7.5   Limitations of this research

The research has certain limitations that need to be taken into account when considering the research and its contributions. In most instances, these limitations were identified at the outset of the research, and where possible, the research methodology was strengthened and each phase of the research rigorously planned to limit the impacts of the issues.

i.   Limitations of interaction between researcher and case participants

A further limitation relates to interaction between the researcher and participants and the limitations (above) in relation to building trust with participants, and addressing the accuracy of self-reported data. As documented in the study, the nature of the collaboration often puts considerable pressure on individuals' time. This factor, together with the geographical location of participants restricted the degree of researcher interaction with potential participants.

ii.   The practicalities of the implementation of a method to knowledge sharing

Knowledge sharing can only be studied by observing people as these processes take place within a real-life context. In order to achieve this, the researcher needed to gain access to a wide range of sources of evidence that included documents and artefacts, but also interviewing participants and observing the development of the knowledge sharing process. Due to the geographical location of the researcher this was deemed not always practical.

The limitations of this research have been systematically identified and, where possible, mitigation strategies have been implemented to reduce the effect of the limitations on the research findings. It is considered that they do not detract from the overall interpretation and significance of the findings, but may serve as future research avenues.

7.6   Further research opportunities

This thesis culminates with the identification of future research opportunities arising from this research. The multi-faceted nature of the research means that there are many avenues of opportunity for future research. The following are areas highlighted for further research:

i.   Confirmation of the research findings

The first opportunity lies in confirming the findings of this research. The research was conducted using a collaborating institution. For future research, a multiple institutions could be used to analyse the data, possibly from different regions in South Africa to explore where other factors exist which did not surface within this research.

ii.   Focus on individual aspects of the research

The second opportunity lies in exploring specific aspects of the research in greater depth. The nature of the primary research objective (to acquire a better understanding of knowledge sharing within the HIV/AIDS NGO sector, intra-organisational context) required the researcher to explore a broad range of factors and required extensive time in both data collection and evaluation. Findings indicate several factors that could form the basis of more in-depth research. For example, culture was identified as a key component.   Therefore a better understanding of this single factor would be advantageous in assisting intra-organisational teams to facilitate knowledge sharing.

iii.   Extending the scope of the research

While this research focused on knowledge sharing within HIV/AIDS NGOs, future research could focus on inter-organisational knowledge sharing between HIV/AIDS NGOs.   Future research might be extended to encompass other types of collaborative arrangement, such as public-private, or between governments of different countries. HIV/AIDS NGOs in Southern Africa or even across the world could benefit as international boundaries become more blurred through increasing collaboration.

iv.   *Application and testing of the framework*

Another opportunity arises from the application and evaluation of the conceptual framework. The multi-dimensional nature of the framework lends itself to either application of the entire framework, or application of a single or number of dimensions. Either approach would result in the development of a substantial body of data that would allow for systematic comparisons between cases to be carried out.

v.   *Examining causality between individual factors of the research*

In this research, the conceptual framework has evolved from a basic model encompassing the key aspects of the research to a framework that identifies components that need to be considered for effective knowledge sharing. However, the research does not extend to identifying cause and effect. Future application of the framework could be used to examine causality between individual factors of the research.

7.7   Concluding remarks

This research provides contributions to knowledge, but the previous sections show that the research has limitations, and that there are a number of areas of further research that might be addressed. All of these have been discussed in this and the preceding chapters, and the claims for this research outcomes are defensible and supported in this thesis. The critical reflections recognise weaknesses and limitations, but whilst it is important to recognise these, it is argued that this recognition strengthens rather than weakens the claims of this research.

This research has highlighted the increasing importance of intra-organisational knowledge sharing in HIV/AIDS NGOs in South Africa, but has also identified this as an area in which

little is known. The research has provided some insight into the knowledge sharing behaviours of HIV/AIDS NGOs but there remains a significant need for researchers to develop and extend studies into this phenomenon.

This thesis has reported a project that spanned over seven years. This project has made a significant contribution to the body of knowledge available in the knowledge management domain. Furthermore, there have been specific benefits for all stakeholders, derived from their relationship with the PhD research reported.

For the researcher, this project has provided an opportunity to consolidate her academic background with invaluable experience, enabling her to conduct rigorous and relevant research in the future.

For the Faculty of Engineering and Computing at Coventry University this has been an innovative project which has successfully uncovered an area that is likely to bring new opportunities for teaching and research, as well as further collaboration with the healthcare sector.

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APPENDIX

Appendix 1: HIV/AIDS NGOs by Programme Activities

NGO	Summary	Programme	Location
Adventist Development and relief Agency	Faith-based organisation supporting the work of 65 different NPOs which provide disaster relief, food security, childcare, counselling and othe forms of support and training to vulnerable communities throughout KZN and Free state.	HCD, BC, OVC, HCD, SP	47 Gillitts Road, Pinetown, Durban
Africa Centre for Health and Population Studies, UKZN	Conducting policy-relevant health and population research in partnership with the community in which it works in order to enhance the capacity of the people of sub-Saharan Africa to do research. The over-arching research priorities at the Africa Centre are to rapidly inform the development of interventions aimed to reduce the incidence of HIV, and to improve HIV-related service provision through increased understanding of the effect and impact of the HIV epidemic at an individual and population level.	HSS, HCD	P.O. Box 198 Mtubatuba 3935 South Africa
AIDS Foundation of South Africa (AFSA)	AFSA acts as an interface between donors and CBOs and NGOs working int he HIV and AIDS sector, placing funds with strategically selected organisations and providing them with ongoing mentoring, technical support and capacity building.	HCD, ME	237 Musgrave Road, Durban, SA
Amangwe Village - KwaMbonambi	Providing HIV and AIDS education, training and counselling, income-generation projects, and support for orphans and vulnerable children.	OVC, OP, OVC, PC, BC, HCD, OP	Amangwe Village , Turn off to Old Mapelane Rd
Amanzimtoti Child Welfare SA	Providing care and support to children and families in need, including those infected and affected by HIV and AIDS.	HCD, OVC, BC, OVC, HCD	Cnr Adams and Lewis Sts, Amanzimtoti
Amaoti Community Project	Providing food to children in formal and informal creches in Amaoti Township, and working towards the development and upliftment of the area. There is also a life skills project to reduce the spread of HIV amongst the youth of the area.	OVC, HCD	PO Box 20147, Durban North, 4016
Beth-Hatlaim Children's Home (Shalom Trust)	Providing a home for orphaned and abandoned children from birth to 18 years.	OVC	P.O. Box 373, Greytown, 3250
Black Sash Advice Office - Durban Central, Durban	Providing a free paralegal service and assistance in obtaining social grants.	HCD, BC, HCD, HSS	Diakonia Centre, 20 Diakonia St, Durban, 4001
Blessed Gerard Care Centre	Providing palliative care and treatment for people, including those with AIDS, in a hospice and in the community. Also providing a home for children, many of whom are infected or affected by HIV and AIDS	BC, HCD, BC, OP	61 Anderson Rd, Mandeni,
CARE (Christian AIDS Response and Education)	Providing counselling, food parcels and home visits to families infected and affected by AIDS. The project, run by volunteers, is a combined effort of the Presbyterian, Dutch Reformed, Methodist and Anglican churches in Durban North. CARE has links with Hillcrest Aids Centre, Treatment Action Campaign, McCord's Hospital, Zoe Life, Crisis Centre, Greenwood Park, Inanda Hospice and a local volunteer doctor from a private practice.	BC, HCS, RCT	Greenwood Park Methodist Church, Cnr Blackburn and North Coast Rds, Redhill, Durban North, 4051
Catholic Archdiocese of Durban AIDS Care Commission	Co-ordinating the HIV and AIDS related activities of all the parishes and Southern African Catholic Bishops' Conference projects within the Durban Diocese.	HSS, XD, BC, OVC, HCD	154 Gordon Road, Morningside, Durban, 47489
Cathedral of the Holy Nativity	Providing care and support to orphans and vulnerable children.	OVC	169 Langalibelele St, Pietermaritzburg
Centocow Development	Providing assistance and support for orphans and vulnerable children, and people living with HIV and AIDS.	BC, OP, XD, OVC	PO Box 21, Creighton, 3263

Programme			
Change Agents (Youth For Christ)	Empowering school children, aged 13-15 years, to modify their behaviour and become peer educators around issues of leadership, personal development, gender, reproductive health and HIV and AIDS in the Ntuzuma, KwaMashu, Inanda and Amaoti areas.	HCD	YMCA building, 1 Alan Paton Ave, Pietermaritzburg, 3200
Chatsworth Hospice	Providing palliative care and support for people with terminal illness.	BC	1 Strelitzia Rd, Silverglen, Durban, 4030
Child Care South Africa	Providing peer education HIV and AIDS workshops for youth, care and support for orphans and vulnerable children, training for caregivers and child advocacy forums for communities.	OP, OVC, HCD	137 Kangela Street, Eshowe, 3815
Children First	Children First engages in advocacy, information dissemination and child participation activities to promote the rights and well-being of children, with a focus on HIV/AIDS, social security and justice.	HCD	1 Achando, 337 Montpellier Road, Morningside, 4001
Child Welfare SA	Co-ordinating the activities of all the KwaZulu-Natal Child Welfare branches, which provide care and support for children and families in need, including those affected and infected by HIV and AIDS.	HSS, HCD	9 Centre Rd, Sea Cow Lake, Durban, 4035
Children's Rights Centre	An advocacy organisation generating awareness around children's rights through access to information, resources and skills-training, with a strong focus on children affected and infected by HIV and AIDS. The Children's Sector HIV/AIDS National Network (CHANN) is a broad group of civil society networks and organisations concerned with children and HIV and AIDS. The Children's Rights Centre is responsible for the overall coordination and communication within the network.	OVC, HCD, HSS	The Children's Rights Centre , 1st Floor , Durban, 4001
Christian Social Services	Social welfare programmes focusing on foster care placement and the HIV and AIDS education.	OP, OVC	408 Prince Alfred St, Pietermartitzburg
NOAH	Providing care and support to orphans and vulnerable children.	OVC, PC, HCD	C/O NOAH , PO Box 1299, Umhlanga Rocks, 4320
Clermont Community Resource Centre	A centre providing education, counselling, support and assistance with social grants for people infected and affected by HIV and AIDS, as well as human rights and lifeskills education for youth.	HCD, BC	892 17th Ave, Clermont, Durban
Clouds of Hope	Providing a home for children who have been abandoned or orphaned as a result of AIDS, and running an outreach programme that provide home-based care and food parcels to affected families.	OVC, BC	Clouds Farm, Woodfrod Road, Underberg
Clowns Without Borders, South Africa	An artist-led humanitarian organization dedicated to improving the psychosocial condition of children affected by HIV/AIDS and communities in areas of crisis through laughter and play.	HCD, OP	Durban
Community Outreach Centre, St Mary's	Providing home-based care and support for orphans and vulnerable children in the communities around Marianhill.	OVC, BC, HCD	On premises of St Mary's Hospital , 1 Hospital Road, marian Hill, Pinetown
DCC Hope Centre Clinic	A comprehensive HIV and AIDS programme offering voluntary counselling and testing (VCT), antiretroviral (ARV) referrals, counselling, training, assistance with social grants, home-based care and HIV awareness workshops.	RCT, BC, XD, HCD, OVC	54 Berea Road, Durban
DramAidE (Drama Aids Education)	DramAidE (Drama in Aids Education) is an independently funded, university-based programme using participatory methodologies for HIV and AIDS education.	OP, HCD, HSS, AB	University of KwaZulu-Natal, Hut 7, Mazisi Kunene Ave,

			Glenwood, Durban
Dumbe HIV/AIDS Action Group	Providing home-based care, food parcels, and education and awareness initiatives to prevent the spread of HIV and AIDS in the Paulpietersburg area.	BC, OP	219 Dumbe Municipal Offices, Dumbe
Durban and District Child Welfare SA	A society committed to the care of abandoned babies, orphans and vulnerable children and the protection of children from abuse and neglect.	OP, HCD, OVC	20 Clarence Road, greyville, Durban, 4023
Durban Children's Home	Providing a home for orphans and vulnerable children, many of whom are infected with HIV and AIDS. The Amaqhawe Care Centre within the home offers palliative care for those who are terminally ill.	OVC, PC, HCD	222 Manning (Lena Ahrens) Rd, Glenwood, Durban, 4001
Durban Lesbian and Gay Community Resource Centre	A drop-in health centre, in central Durban, providing HIV and AIDS information, counselling and education.	HCD	320 West St, Office 2726, Durban Central, Durban, 4001
Edith Benson Babies' Home	A Child Welfare Durban and District project providing a home for orphans and vulnerable children from birth to five years of which allmst half are HIV positive.	OVC	23 Garbutt Rd, Sherwood, Durban
Ekusizaneni Child Care and Development Centre	Providing accommodation and support for orphans and vulnerable children and a hospice for adults living with HIV and AIDS.	BC, OVC, BC	K 1263 Sagwaca Rd, KwaMashu, 4360
Embocraft Training Trust	Establishing and supporting income-generating projects to provide support for families infected and affected by HIV and AIDS. Embocraft is a skills-training organisation aimed at empowering poverty-stricken communities in KwaZulu-Natal.	HCD	237 Old Main Rd, Bothas Hill, Hillcrest, 3650
eSimphiwe / Thokomala Baby House	Providing temporary shelter for AIDS-affected, orphaned, abused and neglected children age birth to 5 years, before re-uniting with biological family, placement with an appropriate family for adoption or placement in foster care in one of the foster homes administered by the organisation.	OVC, HCD	Farm Shonalandga , R56 Ixopo Rd, Richmond
Estcourt Hospice	Providing palliative care and support for people with HIV and AIDS and other terminal illness.	BC	46 Beechwood Road, Estcourt, 3310
eThekwini AIDS Programme	Providing training and information about HIV and AIDS. . The Durban eThekwini AIDS Programme, formerly ATICC, is one of 24 such centres brought about by the National Department of Health between 1989 and 1995 in order to train Health Care Providers to respond to the HIV and AIDS epidemic. Information about HIV and AIDS is distributed throughout the whole eThekwini area.	HCD, OP	Durban Central
Ethelbert Children's Home	Providing a home for orphans and vulnerable children, foster care placements and training and education programmes for the local community.	OVC, BC, OP, HCD	93 Ethelbert Rd, Malvern
Ethembeni Care Centre	Providing in-patient care for seriously ill people, including those infected with HIV and AIDS. Out-patient facilities are also provided. Patients need to be referred by a government medical institution before admission to Ethembeni Care Centre. This is a step-down sub-acute medical facility which takes both medical and non-medical aid patients. Out-patients from the community are also seen at the centre.	RCT, BC	Amangwe Village , Turn off to Mapelane Rd, KwaMbonambi
Fair Havens Transition Home	Providing a transitional home for orphans and abandoned babies. Fair Havens is a project of Indlela (see separate entry) and is presently based in the grounds of the Church of the Good Shepard, which provides appropriate living and working areas for the children and their caregivers, as well as outside areas for the children to play.	OVC	37 Mackeurtan Ave, Durban North, 4016

FAMSA (Families South Africa)	Providing HIV and AIDS counselling and education and awareness programmes and training.	BC, OP, HCD	30 Bulwer Road, Glenwood, Durban
Fancy Stitch Group	An income-generating project that provides work for women affected and infected by HIV and AIDS, and raises awareness of the disease. he Fancy Stitch Group aims to raise awareness of HIV disease and provide a means of support for those who are affected and infected by the disease. Women come to the centre to learn embroidery and to gain psychosocial support from the group sessions. The group produces embroidered cards and photo frames, quilted clothing, tapestries, wire angels and keyrings.	HCD, OP	Ingwavuma
Feed the Babies Fund	Providing supplementary feeding for disadvantaged babies and young children living in KwaZulu-Natal. HIV and AIDS awareness in schools through fundraising talks	PC, OP	23 York Ave, Glenwood, 4001
Focus on iThemba	Providing a nurturing family life for children orphaned by AIDS through cluster foster care homes, each run by a married couple and housing six children. Primary schooling is provided by an on-site primary school followed by continued educational support until the children become financially independent.	OVC, HCD	333 Blessing Ninela Road, Hillcrest, 3610
Focus on the Family	A faith-based programme providing lifeskills and education about HIV and AIDS to young learners.	HCD, OP, BC	333 Fischer Rd, Hillcrest, Durban
FoodBank Durban	Providing food support to organisations working to alleviate poverty and support families affected by HIV and AIDS.	BC	Unit 4, 11 Travertine Crescent, Briardene, Durban
Friends for Life	Providing support for orphans and vulnerable children, home-based care, food security and income-generating projects.	BC, HCD, OVC, OP	Mpophomeni Community Hall, Nelson Mandela Highway, Mpophomeni, 3291
Genesis Care Centre	Providing palliative care, antiretroviral treatment (ART) and holistic support to people infected and/or affected by HIV and AIDS in the Ugu district.	BC, XD, RCT, HCD	Lot 17, Izotsha Road, marburg, Port Shepstone
Global Fund	The Global Fund brings together multi-lateral, government, private and corporate donations to finance the fight against HIV/AIDS, malaria and TB.	HSS	
God's Golden Acre	Providing cluster foster homes for orphans, and rural outreach programmes for orphans and vulnerable children and their extended families.	PC, OVC, HCD, HSS	6 Killarney Rd, Cato Ridge, 3680
Gozololo	Providing assistance to orphans and vulnerable children, including those infected and/or affected by HIV and AIDS.	PC, OVC, BC, HCD	G120 Nonkhenke Rd , KwaMashu
Greytown Children's Home	Providing accommodation for orphans and vulnerable children from 3-18 years of age.	OVC, BC	177 Durban St, Greytown
H.A.B.I.T (HIV Abandoned Babies & Infants Trust)	Providing a caring Christian home for abandoned HIV and AIDS affected babies in the transition phase between being abandoned and being placed in a permanent caring environment.	OVC, HSS	8 Royal Palm Ave, Umhlanga Ridge, Durban, 4019
Hamba Ekukanyeni (Walk in the Light Ministries)	Providing for the spiritual, emotional and physical needs of families affected by poverty and HIV and AIDS.	OVC, PC, HCD	F7 Baynesdrift Road , Table Mountain, Pietermaritzburg, 3200

Happy Valley Clinic and Khayalethu Rescue Centre	Providing clinic services, community health workshops, and a home for abandoned babies, people infected and affected by HIV and AIDS, and victims of domestic violence.	PC, OVC, HCD	Gcwensa Store , River View , KwaNqetho, Hillcrest
Health Economics and HIV/AIDS Research (HEARD)	A University of KwaZulu-Natal-based organisation conducting research on the socio-economic aspects of public health, especially the HIV and AIDS pandemic. HEARD aims to help promote health and development strategies to improve the welfare of people in and beyond Africa.	HSS, HCD	University of KwaZulu-Natal , Westville Campus , J Block, Level 4 University Road, Westville, Durban
Hearts of Compassion	Providing support to destitute families and orphans and vulnerable children, and home-based care for people living with AIDS	BC, OVC	Midlands Christian Centre, Good Street, Estcourt, 3310
Highway Hospice	Providing palliative care and support for people with terminal illness, including people living with AIDS.	BC, HCD, OVC, PC	59 Locksley Dr, Sherwood, Durban, 3630
Hillcrest AIDS Centre Trust	A comprehensive support programme for families affected by HIV and AIDS, providing education, home-based care, home-based care training, respite care, counselling, VCT, food support, assistance with school fees and skills training in income generation.	BC, HCD, PC	26 Old main Road, Hillcrest, Durban, 3650
HIV-911 Referral line and Data Collection Centre	A toll-free telephone service, an online database and a national hard copy directory series providing information about over 12 500 HIV-related support services throughout South Africa.	HSS, SI, HCD	C/O HIVAN , Hut 10, Howard College Campus, University of KwaZulu-Natal , King George V Ave, Berea, Durban
HIVAN (The Centre for HIV and AIDS Networking)	HIVAN was established by the University of KwaZulu-Natal to promote, conduct and build capacity for research into ways to help people infected and affected by HIV and AIDS. The HIV-911 Programme is the flagship programme of the Centre for HIV and AIDS Networking (HIVAN).	HSS, OP	Hut 10, Howard College Campus, University of KwaZulu-Natal , King George V Ave, Berea, Durban
Holy Cross Hospice	Providing palliative care for people with terminal illness and support for orphans and vulnerable children and their families	PC, HCD, OVC	4856 Main Rd, Emoyeni, Gingindlovu, 3800
Howick Hospice	Providing palliative care for people with terminal illness.	PC	7 Mansfield Road, Howick, 3290
Human Sciences Research Council (HSRC)	A statutory body that supports development both nationally and in Africa and conducts large-scale social science research in several different areas, including HIV and AIDS, for public sector users, non-governmental organisations and international development agencies.	HSS	750 Francois Rd , Intuthuko Junction, Durban, 4014
Humanity Organisation for People's Empowerment (HOPE)	Providing home-based care and counselling to people living with HIV and AIDS.	OP, BC, HCD	899 Caluza Rd, Edendale, Pietermaritzburg, 3200
I Learn to Live (Ngifundela Ukuphila)	Providing lifeskills and soft skills training in preparation for tertiary study and the workplace, as well as securing funding for study at further education colleges for youth, including those infected and/or affected by HIV and AIDS, in the Richard's Bay area.	OP, HCD	Richard's Bay
Ikhaya Lethu - Colenso	Providing a home for orphans and vulnerable children from birth to 18 years of age.	OVC	23 Club Road, Colenso, 3360
Ikhaya LikaBaba	Providing shelter, care and love to abandoned babies and AIDS orphans.	OVC	Perkins Estate, R5, R102, Felixton, 3880

Ima House of Light (Baytul-Nur)	Providing counselling, training, home-based care and care and support, particularly to those infected and affected by HIV and AIDS, including orphans and vulnerable children, in KwaZulu-Natal.	OP. BC, XS, OVC, HCD	22 Browns Grove, Sherwood, Durban, 4291
Indlela	A faith-based umbrella organisation providing counselling, life skills and HIV prevention (Door of Hope),a transition home for orphans and abandoned babies (Fair Havens), and development projects, including feeding schemes, for the Amaoti community.	BC. OVC, HCD	37 Mackeurtan Ave, Durban North, 4016
Inkululeko Babies' Home	Providing a home for orphaned and abandoned babies and toddlers, many of whom are HIV positive.	OVC	15 Nyala drive, vryheid, 3100
Isandla Somusa	Providing support and referral services to orphans and vulnerable children.	OVC, PC	C2494, Ezakheni, ladysmith, 3381
Isibani Sethemba (Light of Hope)	Providing home-based care and support groups for both paediatric and adult patients, community-based support for orphans and vulnerable children and their families, voluntary counselling and testing (VCT), food security and primary healthcare services.	OVC, BC, PC, HCD, RCT, OP, HSS	Nkondosini Reserve, Ingwavuma
Isihawu Initiative	Providing care and support to orphans and home-based care to people living with AIDS.	OP, BC, PC, HCD, HSS	Little Flower Missionside, Bulwer St, Eshowe
Ithemba Lethu AIDS Initiative	Caring for babies orphaned or abandoned as a result of HIV and AIDS and facilitating adoption into suitable families, as well as providing a pre-adolescent school-based behavioural change intervention, supported by programmes for caregivers and teachers, in order to prevent HIV infection.	OVC, OP	26 Archer Crescent, Manor gardens, Durban, 4072
Khayelisha Care Project	Providing physical and psychosocial support to orphans and vulnerable children in the Msinga district, who do not receive support from another source, eg. social grants.	PC, OVC, HCD, TB, HSS	Mbono Rd, Tugela ferry, 3010
Khazimula Children's Shelter	Providing shelter for orphans and vulnerable children from 6 to 18 years old.	OVC, HCD	D18 Valley Road, Lidgeton, 3270
Khulani Children's Shelter Trust	Providing a home for school-going children infected and affected by HIV and AIDS, a drop-in centre for orphans and vulnerable children, and various income-generation and training projects for disadvantaged women and unemployed matriculants.	OVC, HCD	33 Grove Crescent , Parkhill, Durban, 4023
Kwa-Dukuza Child Welfare SA - Asibavikele project	An affiliate of the national Child Welfare organisation providing care and support to children and families in need, including those infected and affected by HIV and AIDS.	OVC, HCD, PC, BC, OP	Cnr Cato and Jacaranda Sts, Kwa-Dukuza, 4450
KwaHilda Ongcwele Community Centre	Providing care and support for orphans and vulnerable children and home-based care for people living with HIV and AIDS.	BC, PC, HCD	House 2401, Osizweni, Newcastle, 2952
KwaMashu Child Welfare SA	An affiliate of the national Child Welfare organisation, providing care and support for children and families in need, including those affected by HIV and AIDS.	OVC, HCD, BC	86 Malandela Rd, KwaMashu, 4360
KZN Rural Ministries	Co-ordinating hospices and organisations falling under its jurisdiction, and facilitating and assisting them with registration, funding and supplies.	HCD	B670 Ngwelezane Township , Cnr Sikhova and Makholwane Sts, Ngwelezane, Empangeni, 3880
KZNCAN (KwaZulu-Natal Church AIDS Network)	A network of churches and Christian organisations formed to help co-ordinate and support the work of church-based HIV and AIDS programmes within KwaZulu-Natal.	HSS	KwaZulu-Natal Christian Council (KZNCC) , 50 Longmarket St, Pietermaritzburg, 3200

LifeLine Stamford Hill	Providing counselling and voluntary counselling and testing (VCT) services, as well as training and outreach programmes for community-based organisations, the community itself and the private sector.	HCD, BC	38 Adrian Rd, Stamford Hill, Durban, 4001
LifeLine Pietermaritzburg	Providing voluntary counselling and testing (VCT) and other counselling services, including rape counselling, CD4 tests, and HIV and AIDS training and outreach programmes.	HCD, BC, RCT, HCD, HSS	14 Princess St, Pietermaritzburg, 3200
LifeLine Zululand	Providing HIV counselling and testing (HCT) and general counselling services, as well as HIV and AIDS training and education, victim empowerment and emotional wellness programmes.	BC, HCD, RCT, OP	14 Bauhinia Bend, Arboretum, Richard's Bay 3900
Lily of the Valley Children's Village and Community Projects	Providing homes, a drop-in centre, and feeding and day-care facilities for orphans and vulnerable children, as well as training in lifeskills and income generation for adults.	OVC, PC, HCD, PC, RCT	Road D418 , Mophela Township, Eston, 3720
Little Elephant Training Centre for Early Education (LETCEE)	Providing training for early childhood development (ECD) practitioners, as well as ECD intervention programmes for children unable to access appropriate services due to location or illness.	HCD, OP	130 Voortrekker St, Greytown, 3250
LoveLife	LoveLife is South Africa's national HIV prevention programme for youth.	OP	
Lulisandla Kumntwana (Mseleni Children's Home)	Providing support for orphans in the Umhlabuyalingana and Big Five municipalities in northern KwaZulu-Natal.	PC	C/O Mseleni Children's Home, Mseleni, 3967
Lulisandla Social Outreach Project (LUSOP)	Providing training in home-based care, home-based care, support and assistance to orphans and vulnerable children, food security and assistance with food gardening.	BC, PC	Albini Roman Catholic Church, D210, Ward 7 , Outer West, 3700
Makaphutu Children's Home	Providing a home for orphans and vulnerable children.	OVC, PC	D826 Farm , H3 Embo , ribal Authority, Botha's Hill,
Mandeni Youth Centre	A loveLife Y-centre providing a peer group education, training and lifeskills programme for youth about HIV prevention and sexual health.	OP, HSS	Thokoza Rd, Sundumbili, Mandeni, 4490
Margate Child Welfare SA	An affiliate of the national Child Welfare organisation, providing care and support to children and families in need, including those affected and infected by HIV and AIDS. volunteers visit the homes of people infected or affected by HIV and AIDS, offering assistance and support, and, where necessary, referring patients to social workers at the Child Welfare.	BC	5 Uplands Rd, margate, 4275
Mother of Peace Communities	A faith-based organisation providing foster care and a family life for orphaned, abandoned and vulnerable children.	OVC	Dengeleni Hostel, Illovo Sugar Mill, Lower Illovo, Amanzimtoti,4150
Mpilonhle	Providing mobile units to promote health, prevention of HIV and AIDS, and computer skills in rural schools and communities.	OP, BC, OP, HCD, RCT	Lot 58, Jan Smuts Ave, Mtubatuba, 3935
Mpilonhle Project	Mpihonhle, meaning 'holistic heath' in isiZulu, works to assist orphans, vulnerable children and people living with HIV and AIDS.	BC, HCD, OVC, BC	16 Tatham St, Ladysmith, 3370
MRC (South African Medical Research Council) HIV Prevention Research Unit	Addressing the HIV epidemic in South Africa through the establishment of The HIV Prevention Research Unit, which offers prevention, treatment and care in collaboration with key stakeholders.	HSS, LAB	Village Market , 123 Jan Hofmeyer Rd, Westville, Durban. 3630
Msunduzi HIV/AIDS Unit	Providing training and information about HIV and AIDS, and voluntary counselling and testing (VCT) services.	HCD, BC, HCD, RCT, OP, HCD	3rd floor Allied Building, 30 Timber St, Pietermaritzburg, 3201

Msunduzi Hospice	Providing palliative home-based care and day care for people with terminal illness, including AIDS.	BC, PC, HCD	200 Zwartkop Rd, Prestbury. Pietermaritzburg, 3208
NOAH (Nurturing Orphans of AIDS for Humanity) KwaZulu-Natal	Empowering communities with the knowledge, skills, strategies and self confidence to care for their own orphaned and vulnerable children, so that the children may mature into emotionally and psychologically stable adults. The care and support of the children includes help with accessing documentation and grants, food, daycare, aftercare and home visits.	HCD, BC, PC	C/O NOAH , PO Box 1299, Umhlanga Rocks, 4320
OLIVE LEAF Foundation	Enabling sustainable community development in five provinces of South Africa and five other sub-Saharan countries. Various interventions promote gender equality, care and support for orphans and vulnerable children, and education and capacity to build effective communities that are able to cope with the AIDS pandemic.	HCD, BC, OP, BC	85 Field St, Durban, 4058
OneVoice South Africa	Promoting meaningful participation of young people by engaging them in an interactive and creative Schools Programme (a series of nine workshops), which focuses on life skills, sexual reproductive health, gender and human rights issues and is implemented in schools across South Africa.	OP	201 FNB House, 151 Musgrave Road, Durban, 4001
Operation Bobbi Bear	Providing services to rescue and uphold the rights of sexually abused children, minimise their risk of HIV infection and bring them towards wholeness.	HCD, BC, PC, HCD	122 Umdoni Rd, Amanzimtoti, 4126
OSCAR (Outreach Social Care Project)	Providing comprehensive care for orphans and vulnerable children, programmes geared towards those infected or affected by HIV and AIDS, and HIV education and prevention programmes for the youth.	OVC, HCD, PC, OP, PC	170 Boom St, Pitermaritzburg, 3206
PADCA (Pietermaritzburg and District Council for the Care of the Aged)	Providing care and resources for older people, HIV and AIDS education directed primarily at older women, and respite for overworked grannies caring for orphans.	OP	450 Bulwer St, Pitermaritzburg, 3200
Peace Haven Crisis Care	Providing care and support for abused people and people infected and affected by HIV and AIDS. As well as supporting a children's home in Amoati (Inanda), and creches in the Ndwedwe, Inanda and the Valley of 1000 Hills districts, the organisation has a crisis centre in Verulam and another in Sunningdale (Umhlanga).	BC	Sunningdale, Durban,
Phakamisa	Empowering impoverished communities through the provision of educational training, income-generating projects and support groups.	HCD, BC	7-9 Church Lane, Pinetown, 3600
Philanjalo Hospice	Providing palliative care for people with terminal illness and overseeing an orphan-care programme, and research into TB and HIV.	BC, OVC, HSS	Philanjalo Hospice , Road 33, Tugella Ferry, 3010
Pietermaritzburg Agency for Christian Social Awareness (PACSA)	Assisting individuals, communities, existing church organisations and HIV and AIDS organisations, particularly in materially poor communities, in achieving their goals for social transformation and HIV- and gender-competence in their communities.	HCD, HSS	170 Hoosen Haffejee St, Pietermaritzburg, 3200
Rehoboth Children's Village	Caring for orphaned and abandoned children living with HIV and AIDS in a children's village setting.	BC, HCD, PC	M23 D412 Rd, Silverstream Farm, Sub 17, Murchison, 4240
Rural Women's Movement	Economically empowering women through education and the allocation of land. The Rural Women's Movement also works extensively with issues around HIV and AIDS and orphans and vulnerable children.	HCD, OVC	38 Valley Rd, Sea Cow Lake, Durban, 3245
Sethani - Valley of a Thousand Hills	Providing care for orphans and vulnerable children in KwaNgcolosi in the Valley of a Thousand Hills, including educational, food and psychosocial support.	OVC, PC, HCD	Sethani Centre , Umshazi , KwaNgcolosi, Valley of a Thousand Hills.

			Durban, 3640
Shepherd's Keep Home	Providing a temporary, loving home and palliative care for abandoned and/or HIV positive babies from birth to six months of age.	OVC, PC	1195 Bluff Rd, Marlborough Park, Durban, 4036
Sibusisiwe Clermont Child Welfare SA	Providing help and support to children and families in need, including those who are infected and affected by HIV and AIDS.	OVC, HCD, PC, OP, PC	B124 Minkner Rd, Clernaville, Durban. 3602
Sinbambisene	A coalition of NPOs providing home-based care and orphan and vulnerable children support in the Umkhanyakude Municipality of Northern KwaZulu-Natal.	HSS, HCD	3rd st, Jozini, 3969
Sinikithemba HIV/AIDS Care Centre, McCord Hospital	Providing antiretroviral treatment to HIV infected people who are eligible, as well as voluntary counselling and testing (VCT), a comprehensive prevention of mother-to-child transmission (PMTCT) programme and post-exposure prophylaxis (PEP). The care centre also runs a step-down facility, Siyaphila, and a paediatric programme for HIV-positive children and youth.	XD, RCT, PMTCT, BC	53 McCord Rd, Overport, Durban, 4067
Sinosizo	Providing home-based care and treatment support for people living with AIDS, as well as care and support for orphans and vulnerable children and training in various HIV and AIDS-related areas.	BC, OP, HCD, PC, OVC	5 Adams Rd, Amanzimtoti, 4125
SOS Children's Village	Providing a home for orphans and abandoned children, and support to orphans and vulnerable children within the community.	OVC, BC, PC	59 Charles Barter Rd , Grange, 3209
Soul of Africa	A self-sustainable project teaching previously unemployed women in South Africa to hand-stitch leather shoes, and donating all manufacturing profits toward the care of orphans and vulnerable children affected by HIV and AIDS.	BC	23-31 Harden Ave, Durban
South African Red Cross Society Home-Based Care Project (KZN)	Providing HIV prevention education through peer education, home-based care and treatment support to people living with HIV and AIDS and support to affected families, including orphans and vulnerable children.	PC, OVC	201 Northway, Durban, 4000
South African Red Cross Society Home-Based Care Project - Empangeni, Zululand	Providing home-based care to people living with AIDS and support to affected families, including orphans and vulnerable children.	PC, OVC, BC	Suite 3, Chamber House, 38 Union St, Empangeni, 3910
South Coast Hospice Association	Providing palliative care for people with terminal illness and their families, care and support for orphans and vulnerable children, and training in home-based care, counselling and HIV and AIDS prevention.	PC, OVC, BC	29 Connor St, Port Shepstone, 4240
St Apollinaris Mission Hospital	Providing antiretroviral treatment (ART) to HIV-positive people who are eligible, voluntary counselling and testing (VCT), prevention of mother-to-child transmission (PMTCT) and post-exposure prophylaxis (PEP).	RCT, VCT, OVC	Centocow Mission, Centocow Mission, 3263
St Clement's Home-Based Care	Providing home-based care to people living with HIV and AIDS and support to orphans and vulnerable children in Clermont and surrounding areas.	PC, OVC, BC	892 17th Ave , Clermont, 3620
St Mary's Hospital	Various donor-funded programmes, providing prevention, treatment and care programmes to HIV-positive patients and their families, including antiretroviral treatment (ART), HIV counselling and testing (HCT), care and support of HIV-positive mothers and prevention of mother-to-child transmission (PMTCT), post-exposure prophylaxis (PEP), hospice and home-based care for people living with AIDS, as well as male medical circumcisions as a preventative intervention for HIV-positive men.	PC, RCT, BC	1 Hospital Rd , Mariannhill, Pinetown, 3605
TAC (Treatment Action Campaign)	Promoting greater access to HIV treatment for all South Africans, through lobbying and public awareness and education campaigns.	BC, RCT	Rm 28, Perks Arcade Building, 197 Langalilabele St,

			Pietermaritzburg, 3201
TEARS (The Entabeni AIDS Relief Sanctuary)	A church-initiated project providing care and support for people in need and those affected and infected with HIV and AIDS.	BC, PC	344 Balhambra Way, Mountview, Pietermaritzburg, 3207
Thandukuphila Community Care Centre	Providing daycare and after school care facilities and a feeding scheme for orphans and vulnerable children, as well as home-based care for people living with HIV and AIDS.	OVC, BC	649 Bhejane St, Old Nseleni Clinic Building , Nseleni Township, 3880
The Child and Family Welfare Society of Pietermaritzburg	Providing care and support for children and families in need, including those affected and infected by HIV and AIDS.	OVC, BC	224 Hoosen Haffajee St, Pietermaritzburg, 3200
The HELP Foundation	Providing help, particularly meals, to primary school children, food parcels to those in need and a centre for the disabled, many of whom are living with HIV and AIDS.	OVC, BC	Shop 7, Strawberry Lane, Port Edward, 4295
The Turntable Trust	Providing support for orphans and vulnerable children, and treatment support and counselling services for people living with HIV and AIDS.	OVC, BC	R617, Underberg Rd, Bulwer, 3244
Thembisa Embo Community	Providing safe, loving homes for children orphaned by AIDS by ensuring each child has a primary caregiver, a suitable dwelling, nutritious food, and access to education and health care.	OVC	25 Marion Road , Hillcrest, Durban, 3610
Thokomala Orphan Care	Setting up community-family homes and foster care support for AIDS-affected orphans in KwaZulu-Natal, the Western Cape, Gauteng, the Free State and the Eastern Cape.	OVC	15 Nollsworth Crescent, La Lucia, Durban, 4000
Tholulwazi Uzivikele	Providing care and support to orphans and vulnerable children, school uniforms and breakfasts, a youth and schools drama initiative encouraging HCT and development of lifeskills, home-based care and training, emotional and psychosocial workshops, paralegal support, food parcels and gardening support.	OVC, PCT, HCD	Tholulwazi Uzivikele Project, HIV Community Care centre, Hospital Rd, Manguzi, 3973
Tongaat Child and Family Welfare Society	Providing help and support to children and families in distress, including those who are infected and affected by HIV and AIDS.	OVC	12/14 Tesco Dr , Potgieters Hill, Tongaat, 4400
Umgeni Community Empowerment Centre	Providing counselling and support for women, home-based care and food security, and a daycare centre for orphans and vulnerable children.	BC, OVC	16 Mona Rd, Durban, 4069
Umvoti AIDS Centre	Providing a drop-in centre, home-based care, support for orphans and vulnerable children, food parcels, psychosocial support and income-generating programmes.	HCD, OVC	Bell St Extension, Greytown, 3250
Umzinto Child Welfare SA	Providing counselling and support to children and families in need, including those infected and/or affected by HIV and AIDS.	OVC	344 Minaret Rd, Umzinto, 4200
Verulam Child and Family Welfare Society	Providing help and support to children and families in need, including those who are infected and affected by HIV and AIDS.	HCD, OVC	5/7 Church St, Verulam, 4340
Verulam Hospice	Providing home-based palliative care and support for people with terminal illness.	PC	45 Assafa Way, Riyadh, Verulam, 4340
Vryheid Hospice	Providing home-based palliative care for people with terminal illness and an HIV and AIDS awareness programme.	PC, BC	90 High St, Vryheid, 3100

Vukukhanye	Providing HIV and AIDS care and prevention, support and care for orphans and vulnerable children including transitional and/or long-term residential care, early childhood learning development, school support including bursaries and sports programmes, a care centre and encouragement and support for the formation of street committees.	PC, OVC, HCD, TB, HSS	Suite 17B Westville Centre, 52 Norfolk Terrace, Westville, 3630
Vulamehlesizwe HIV/AIDS Prevention and Care Organisation	Educating and supporting youth and children affected and infected by HIV and AIDS in the Inanda, Ntuzuma and KwaMashu Townships and surrounding informal settlements.	OVC	5 Markdene Place, Riverdene, Newlands West, 4037
Vuleka Productions	Raising awareness on the plight of AIDS-affected orphans through film in order to conscientize South African society and promote positive change.	OVC	CSIR Building, 2nf Floor, King George V Ave, Glenwood, Durban, 4001
WhizzKids United (The Africaid Trust)	Aiming to deliver effective HIV prevention, care, treatment and support to youth through the medium of football	PC, OVC	40 Clarence Rd, Greyville, Durban, 3611
William Clark / Othandweni Child and Youth Care Centre	A Durban Children's Society project providing residential care for orphans and vulnerable children between 6-18 years.	OVC	23 Garbutt Rd, Sherwood, Durban, 4023
Woza Moya Project	An HIV and AIDS community care and support programme.	OVC, HCD	Woza Moya Community Centre, Chibini Community, Ufafa area, District Road 64, Ixopo, 3276
Wylie House Child and Youthcare Centre (Stepping Stones Association)	Providing a home for children up to the age of 18 years, some of whom are HIV positive.	OVC, HCD	202 Ridge Rd, Berea, Durban, 4058
Youth of Choice (YOC) Organisation	Working towards cultivating change, creating opportunities and building credible future leaders, using outreach projects, educational campaigns and support programmes. Kick For Aids, an HIV and AIDS awareness project, uses sport as an intervention tool to spread HIV and AIDS awareness amongst youth from extremely disadvantaged areas, and to develop lifeskills amongst the youth.	AB, OVC	134 Jabu Ndlovu St, Pietermaritzburg, 3200
Ziphakamise	A faith-based organisation providing a home for orphaned or vulnerable children, and training, development and support for rural communites in southern KwaZulu-Natal. Ziphakamise also works with LoveLife to fight the AIDS pandemic.	OVC	424027 Mitchell Drive, Port Shepstone, 4240
Zulufadder Children's Trust	A Norwegian-funded organisation helping orphans, vulnerable children and their families who have been affected by HIV and AIDS.	OVC	7 Bulwer St, Eshowe, 3815

Abbreviations

		Program Areas	ABV
PREVENTION		Prevention of Mother to Child Transmission	PMTCT
	Sexual	Prevention of Sexual Transmission	AB
			OP
	Biomedical	Blood Safety	BS
		Injection Safety	IS
			ID
		Male Circumcision	CIRC
		Routine Counseling and Testing	RCT
CARE		Adult Care and Support	BC
		Pediatric Care and Support	PC
		TB/HIV Care	TB
		Orphans and Vulnerable Children	OVC
TREATMENT		ARV Drug Treatment	XD
		Adult Treatment	XS
		Peadiatric Treatment	PTX
		Laboratory Infrastructure	LAB
OTHER		Strategic Information	SI
		Health Systems Strengthening	HSS
		Human Capacity Development	HCD
		Monitoring and Evaluation	ME

Appendix 2: Information and Knowledge Management Questionnaire (Knowledge Hub Questionnaire)

Staff were asked to rate the following in terms of (a) importance to their organisation and (b) Reality of current ethos and practice:

- *Awareness and Commitment.* Shows whether staff understands the concept of managing information sharing, and whether senior management are committed to its use.

- *Strategies to encourage information sharing.* Whether the organisation has committed to a programme of information sharing improvement and how it is managed to ensure business benefit.

- *Applying and employing information.* Whether the business actually uses and exploits the information inherent in the company in an effective manner.

- *Monitoring and Review.* Whether the organisation measures the impact information sharing and particularly the management of intellectual assets has on the organisation.

- *Organisational Structure and Processes.* The degree to which the organisational structure supports information sharing.

- *Human Resources.* The extent to which human resources are considered explicitly in support of information sharing.

- *Culture.* Shows whether the behaviours within an organisation enable effective information management.

- *External Factors.* Demonstrates whether an organisation is attempting to look beyond its own boundaries in order to maximise the business opportunities.

- *Incentives.* Whether the organisation properly reward those that supports its efforts towards information sharing.

- *Information Technology.* Indicates whether the existing information technology is sufficient and used effectively enough in supporting information sharing.

- *Maintenance and Security.* Assesses the organisation's protection and maintenance and information assets.

Appendix 3: Interview with Operations Manager at AFSA

INTERVIEW QUESTIONS
1. What is the nature of your business?
2. Number of employers within your organisation?
3. What is your main function?

TECHNICAL
4. How many HIV/AIDS organisations are currently in South Africa?
5. How are HIV/AIDS organisations in South Africa classified?
6. AFSA is a funding organisation. Can you name three similar organisations in South Africa?

MOTIVATION
7. What is your current measure of success?
8. What should be your measures of success?
9. If different, what are the barriers?

COMMUNICATION
10. Are there any communication between AFSA and other AIDS organisations?
11. What type of communication is currently happening i.e. what type of information currently passes between organisations?
12. What type of communication do you think should be happening?
13. What type of communication would you like to be happening?
14. What prevents this from currently happening?

POWER
15. Who decide how grants/funds should be distributed?
16. Has this always been the case?
17. How do you measure whether projects have been successful?
18. How should you measure whether projects have been successful?
19. If you had unlimited power, what would you like to be happening?

Appendix 4: E-mail invitation to Evaluators

Dear xxxx

I would appreciate your feedback on a knowledge sharing framework that I have developed as part of my doctoral research. This forms part of a study to help identify the barriers to knowledge sharing in HIV/AIDS non-government organisations (NGOs) in South Africa and to develop a framework to support knowledge sharing in these organisations.

The exercise should take no longer than **30 minutes** to complete. By providing feedback and returning this form, you acknowledge your consent to participation in this study. Your responses as well as your personal identity will remain completely confidential. On completion of the thesis, a report outlining the overall findings will be sent to your organisation. The report will not identify any individual or their responses. Once the thesis has been submitted (November 2013), funding will be sought for future collaborations in this area and I do hope that you will be open for participation in future projects.

Attached you will find 2 documents:

1. *The Framework* – I would ask you to spend about 5 minutes familiarising yourself with the contents of this document.
2. *Evaluation document* – This consists of questions relating to the framework. Feel free to write or type your responses.

Once completed, I would appreciate it if you could please return the feedback electronically to csx243@coventry.ac.uk by Friday, 23rd August 2013.

For further information, please do not hesitate to contact:

Senior Lecturer, Faculty of Engineering and Computing, Coventry University, UK

E-mail: csx243@coventry.ac.uk

Thank you very much for your help and co-operation and looking forward to working with your organisation in the future.

Best wishes.

Rochelle Sassman

Appendix 5: Summary of Evaluation Document send to Round 1 Evaluator

In Round 1, Evaluators were provided with the knowledge sharing framework and a definition of each component.

They were
   a. asked to rate the relevance of the following components to their NGO
   - structure
   - communication
   - leaders
   - management systems
   - network of relations
   - board of governors
   - political and legal environment

   b. Indicate any other elements that the current framework does not consider

   c. Asked for their views on the purpose, importance, readiness and usability of the framework

Appendix 6: Summary of Evaluation Document send to Round 2 Evaluators

In Round 2, Evaluators were provided with the knowledge sharing framework and a definition of each component.

They were

    a. asked to rate the relevance of the following components to their NGO

- *governing structure*
- *human resources*
- *financial Resources and Administration*
- *communication*
- *leadership*
- *management systems*
- *external relations*
- *political and legal environment*
- *social environment*

    b. Indicate any other elements that the current framework does not consider

    c. Asked for their views on the purpose, importance, readiness and usability of the framework

Appendix 7: A copy of the Ethical Approval Form

From: Raymond Farmer
Sent: Tue 15/01/2008 10:57
To: Rochelle Sassman
Cc: Brian Lehaney
Subject: RE: Emailing: RS Ethics.zip (RDC1)

Rochelle,

I am happy to grant ethical approval for your proposed research (RDC1), entitled 'A framework for the management of HIV/AIDS intervention and treatment programmes in South Africa'.

Best regards,

Ray