

THE ROLE OF NAMIBIAN MINISTERIAL LIBRARIANS IN KNOWLEDGE
MANAGEMENT

MINI - DISSERTATION

BY

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SUBMITTED TO THE UNIVERSITY OF THE WESTERN CAPE IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE MAGISTER
BIBLIOTHECOLOGIAE'S IN THE DEPARTMENT OF LIBRARY AND
INFORMATION SCIENCE

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BELLVILLE: UNIVERSITY OF THE WESTERN CAPE,
SOUTH AFRICA

NOVEMBER 2012

DECLARATION

“I, the undersigned, declare that **THE ROLE OF NAMIBIAN MINISTERIAL LIBRARIANS IN KNOWLEDGE MANAGEMENT** is my own work and that all the sources I have used or quoted have been indicated and acknowledged by means of complete references.”

Signature.....

Date.....



ABSTRACT

The core traditional functions of the library namely collecting, processing, disseminating, storing and the utilization of documented information in order to supply information services and resources, have changed. In the information / knowledge society era, the library manages both external and internal knowledge of the host organization. This can be achieved through the process of collection of relevant information, processing, organizing and dissemination to ensure that information / knowledge contents housed in the library are retrievable and accessible to the targeted audience, using various dissemination channels. Librarians ensure that the targeted audiences are equipped with the skills to locate, evaluate, and use available and useful information / knowledge effectively, by providing information literacy training to them. Studies have found the visibility of librarians in the knowledge management environment to be very low and the utilization of their skills to be minimal. Therefore, this study investigated the practice of knowledge management by ministerial librarians in Namibia. The study relied on the Bukowitz and Williams Knowledge Management (KM) framework (2000). This framework is appropriate to the study because it consists of different stages (GET,USE, LEARN, CONTRIBUTE, ASSESS, BUILD / SUSTAIN, AND DIVEST) that address the themes of the focus of the study, thus making it relevant to effective and efficient knowledge management in an enterprise such as the government ministries.

The method of data collection and analysis employed was qualitative, with semi structured interviews. The results of the study revealed that few ministerial librarians are practicing knowledge management by ensuring that they are identifying, capturing, evaluating, retrieving, and sharing the ministry's knowledge/information assets, for it to add value and improve the performance of employees as they contribute to the strategic missions of the ministries. Viewed from that perspective, the findings reveal some barriers which prohibit ministerial librarians to effectively practice knowledge management, which among of them include: inadequate training; limited resources for ICT infrastructure adaption and purchasing of resources meeting the needs of the ministry; staffing shortage, bureaucratic system, and others. Based on the findings, the researcher therefore recommends that certain measures need to be put in place to address the short comings to effective knowledge management so that ministerial librarians are able to render services to their users for them to become independent lifelong learners.

KEYWORDS: Knowledge Management; Information Management; librarians; libraries; ministerial librarians; knowledge managers; government ministries; Namibia; Bukowitz and Williams framework; qualitative research.



DEDICATION

Dedicated to my grandparents: Junias and Taimi lilonga



ACKNOWLEDGEMENTS

My first and special thanks go to the Almighty God for his grace and blessing that made me work tirelessly till the end of my studies' journey. This journey was made possible by contributions from many people, including family and friends who supported me either directly or indirectly through advice, financial, social, academic, and spiritual support as well as with prayers. Among them are: My sister N. Nekwaya; My adopted daughter A. Alina; My friends J. Mwiiyale; M. Shatona; W. Uuton; W. Uupindi; S. Shoopala; E. Namukwambi; D. Nakuumba (Namibia), L. Shifula; K. Moyo; M. Sichone; C.M. Bosire; My South African sisters M. Mamba, and S. Nibe; A. Shikongo; The whole Mr Ilonga's family, and Mr Hamwaama's family, and the Theses editor G. Katalayi. Without their support, I would not have been able to complete my studies. Thank you all.

I would like to thank my supervisor Dr G.R. Davis for his noble academic support, mentoring, and diligent guidance that led to the completion of this study. My gratitude goes to the staff and post graduate students in the Department of Library and Information Science, University of the Western Cape, especially Associate Professor G. Hart the co-coordinator of the post-graduate programme for her strict supervision during the proposal writing and her continuous support.

Other special thanks go to the head of User Service Department at the University of Namibia Library, Mr. Mabhiza Chenjerai, for his endless professional mentoring and for believing in me; and to all my colleagues at the library for their encouragement and prayers.

I do not want to forget the people who made the production of this document possible, namely the ministerial librarians in Namibia. Your participation in the study is greatly valued.

Lastly my gratitude goes to the University of Namibia for providing financial assistance for my studies. It was not in vain, and this is part of the evidence. All in all is highly appreciated. Thank you.

LIST OF ACRONYMS AND ABBREVIATIONS

AMIS:	Agricultural Management Information System
CLS:	Community Library Service
COP:	Community of Practice
CORC:	Cooperative Online Resources Catalog
EDRMS:	Electronic Documents and Records Management System
ELM:	Education Library Service
GDP:	Gross Domestic Product
ICT:	Information Communication Technology
IFLA:	International Federation of Library Associations
IM:	Information Management
IT:	Information Technology
LMS:	Library Management System
KM:	Knowledge Management
KMS:	Knowledge Management System
KRA:	Key Result Areas



MHSS:	Ministry of Health and Social Services
MLS:	Ministerial Library Service
NAMINFO:	Namibia Information
NAN:	National Archives of Namibia
NBRI:	National Botanical Research Institute
NDP:	National Development Plan
NIWA:	Namibia Information Workers Association
NLAS:	Namibia Library and Archives Services
NLS:	National Library Service
OCLC:	Online Computer Library Catalogue
OPAC:	Online Public Access Catalogue
OPM:	Office of the Prime Minister
R&D:	Research & Development
SCECSAL:	Standing Conference of Eastern, Central and Southern African Library and Information Associations
WLIC:	World Library and Information Congress



CONTENTS

Declaration	ii
Abstract	iii
Keywords	iv
Dedication	v
Acknowledgements	vi
List of acronyms and abbreviations	vii
List of tables	xiv
CHAPTER ONE: BACKGROUND TO THE STUDY	
1.1. Introduction	1
1.2. Background and motivation	2
1.2.1. Importance of knowledge management (KM) for government	3
1.2.2. Benefits of KM for government organisations and employees	3
1.3. Problem statement	4
1.4. Research questions	4
1.5. Conceptual / theoretical framework	4
1.5.1. Concepts of knowledge management	4
1.5.2. Multidisciplinary nature of knowledge	6
1.6. Chapter outline	7



CHAPTER TWO: LITERATURE REVIEW

2.1.	Introduction	8
2.2.	Namibia as a knowledge economy	9
2.3.	Characteristics of ministerial libraries	11
2.4.	Professional competencies of ministerial / special librarians for knowledge management	12
2.5.	Importance of knowledge management in government ministries	14
2.6.	Perceptions of knowledge management practices by librarians	16
2.7.	Practice of knowledge management in libraries	17
2.7.1.	Knowledge collection and acquisition in libraries	19
2.7.2.	Knowledge management organisation and storage	20
2.7.3.	Knowledge management dissemination / transfer / sharing	22
2.8.	Knowledge management education and training for librarians	25
2.9.	Information technologies infrastructure as enablers of knowledge management	26
2.10.	Challenges facing librarians to effectively practice knowledge management	28
2.11.	Theoretical framework	30
2.11.1.	The Bukowitz & Williams Knowledge Management (KM) (2000) Model	30
2.11.2.	Previous studies that adopted the Bukowitz & Williams knowledge management (2000) Model	33
2.12.	Conclusion	34

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

3.1.	Introduction	35
3.2.	Qualitative research approach	35
3.3.	Methods of data collection	37
3.3.1.	Qualitative semi-structured interviews	37
3.3.1.1.	Advantages of qualitative interviews (face to face)	38
3.3.1.2.	Disadvantages of qualitative interviews	39
3.4.	Population and sampling	39
3.5.	Procedures	42
3.6.	Conclusion	42



CHAPTER FOUR: PRESENTATION AND INTERPRETATION OF DATA

4.1.	Introduction	43
4.2.	Viewpoints of Namibian ministerial librarians towards the concept of knowledge management (KM) as part of their professional work	44
4.3.	Knowledge management practices using the Bukowitz and Williams (2000) model	46
4.3.1.	Stage one: GET	46
4.3.2.	Stage two: USE	48
4.3.3.	Stage three: LEARN	51

4.3.4. Stage four: CONTRIBUTE	53
4.3.5. Stage five: ASSESS	55
4.3.6. Stage six: BUILD & SUSTAIN	56
4.3.7. Stage seven: DIVEST	59
4.4. Skills required by librarians to participate effectively in knowledge management activities	61
4.5. Challenges facing ministerial librarians attempting to effectively manage knowledge in their organisations	62
4.6. Possible solutions to the challenges to bring about effective Knowledge management to ministerial librarians	64
4.7. Conclusion	65



CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.1. Introduction	67
5.2. Conclusion	67
5.3. Recommendations	70
5.3.1. Recommendation to government ministries	70
5.3.2. Recommendation to Namibia library and archives services (NLAS)	71
5.3.3. Recommendation to ministerial librarians	73
5.3.4. Suggestions for further research	74

REFERENCES	76
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APPENDICES

1. Request letter to conduct the study	85
2. Permission letter to conduct the study	87
3. Interview questions for ministerial librarians	88



LIST OF TABLES

Table 1:	Skills and Competencies for librarians to practice KM	13
Table 2:	Libraries under NLAS Directorate	40
Table 3:	Ministries and agencies libraries that took part in the study	41



FIGURE

Figure: Bukowitz & Williams (KM) Model (2000)

30



CHAPTER ONE

BACKGROUND TO THE STUDY

1.1. Introduction

The knowledge-based economy of the twenty first century brought with it the development of information communication technologies for the enhancement of the practice of knowledge management in both the private and public sectors. Cong and Pandya (2003:26) point out that the concept of Knowledge Management (KM) and its benefits, which have been much talked about in many organisations, needs to be better understood in order for the organisation to be competent in the practice of KM. Namibia is one of the developing countries which has shown an interest in becoming a competent knowledge-based society. The evidence for this Namibian desire is to be found in the Namibian Vision 2030 document section 4.3, a text which recognizes the need to develop a knowledge-based society because the modern world is moving from heavy industry to knowledge-based economies based on specialist services, specialised industries, communications, and information technologies. The Namibian vision 2030 also urges that, for Namibia to successfully contribute to the knowledge society, the Namibian community needs to transform itself into an innovative and knowledgeable society, supported by a dynamic, responsive and highly effective education and training system (Office of the President 2008:25).

Smith, Fouche, Muirhead, and Underwood (2008) in a strategic assessment study conducted in the Namibian library and information service sector, describe the government/ministerial libraries as responsible for serving the executive and the staff members of the different branches of government. The libraries' contents and organization of the collections need to reflect the needs of their users, and should typically include reports and semi-published or unpublished materials. Besides the employees of the institution, access to the collections may also be extended to bona fide external researchers. Smith, et al. (2008:38) further elaborated

on the primary role of ministerial libraries as providing officials and policy makers in government with the information required for the formulation and execution of government policy and provision of services to the public. Given the paucity of specialized libraries in the private sector and in non-governmental organizations, different members of the business community, students from tertiary education institutions as well as the general public are turning to ministerial libraries for some of their information needs. Therefore, there is an increase in the proportion of external users.

This study investigated the practices of knowledge management among librarians in the Namibian ministerial libraries.

1.2. Background and motivation

Cong and Pandya (2003:26) acknowledge that there is lack of awareness of KM in the public sector or government. Smith, et al. (2008:38) provide statistical information about the usage of the ministerial libraries. According to Smith, et al. only 22% of government officials, managers (of whom a minority are senior managers) and other administrative staff make use of the library. The study gives a clear indication that the ministerial libraries probably do not supply the information sought by managers and other employees in the ministries.

What inspired the researcher of the present study to investigate this issue of practice of knowledge management was the need to explore a search for effective practices of knowledge management by the ministerial librarians within their various ministries. The conclusion arrived at by Cong and Pandya (2003:26) predisposed the researcher to undertake the present study in order to determine the practices of KM in the ministerial libraries, by finding out whether the employees of the government ministries are aware of the existence of the content held in their libraries. Therefore determining how library contents are promoted among employees, and what knowledge harvesting tools and techniques ministerial librarians use to share knowledge with and transfer knowledge to the ministries' employees formed part of the researcher's task. Elaborating on the state of knowledge management in organizations in general, Liebowitz (2004:5) urges that government's have lagged behind a bit in knowledge management and

therefore stresses not only its importance to the government in times of shrinking budgets, and prospective retirements, but also the need to better share information and knowledge across government organisations.

1.2.1. Importance of Knowledge Management (KM) for government

Cong and Pandya (2003:29) point out that in a knowledge based economy, service delivery and policy making are the main governmental tasks, and governments face increasing competition at both the national and international levels regarding these tasks. Therefore, knowledge management is an important tool for aiding governments to address the challenges they face from NGOs as well as from foreign organisations delivering similar services. The effective functioning of government rests on effective acquisition and dissemination of knowledge. The retirement of civil servants and frequent transfer of knowledgeable workers across government departments hamper the retention of knowledge and the preservation of institutional memory as well as the training of new staff. Cong and Pandya (2003:29) further argue that KM is based on the idea that an organization's most valuable resource is the knowledge of its people that focuses on the enhanced rate of change brought about by the knowledge society.

1.2.2. Benefits of KM for government organisations and employees

The practices of KM in the government can be beneficial to both individual employees and organizations at large. At the individual level, KM provides employees with opportunities to enhance their skills and experiences by working together, sharing and transferring knowledge and thus learning from each other (Cong and Pandya 2003:27). Employees also gain knowledge, skills and experience by contacting subject-matter experts through skills databases, online communities of practice, and searchable repositories of skills profiles. By empowering their human resources with the relevant knowledge and expertise, and by transferring knowledge from one employee to another, governments treat each employee as an asset, that is similar to traditional assets like the organizational repository (Cong and Pandya 2003:27). As a consequence, this will in return increase the financial value of the organization which will be able to use its own people's knowledge to train others instead of hiring consultants from external organizations (Cong and Pandya 2003:29; Dataware Technologies 1998:14).

1.3. Problem statement

The present study investigated the role of ministerial librarians in managing the organization knowledge that is available in the libraries' repositories such as print collections, electronic collections, and audio-visual collections and in making it accessible to the ministerial community. The study also focused on how ministerial librarians share and transfer knowledge amongst themselves. Therefore, the study clarifies the contribution of ministerial employees to KM, by finding out if internal knowledge that is produced within the ministry is being deposited in the library to be organized in the system for equal access.

1.4. Research questions

The study tried to address the following questions:

- What are the viewpoints of Namibian government ministerial librarians towards the concept of knowledge management as part of their professional work?
- How are librarians practicing knowledge management using the seven stages of knowledge management framework) (Get, Use, Learn, Contribute, Assess, Build & Sustain, and Divest) as developed by Bukowitz and Williams (2000)?
- What are the skills required by the librarians to participate effectively in KM activities?
- What are the challenges facing government librarians attempting to effectively manage knowledge in their organisations?
- What are the possible solutions to the challenges to bring about effective knowledge management to the government ministerial librarians?

1.5. Conceptual / theoretical framework

In order to investigate the role of ministerial librarians in managing the organization knowledge, the following concepts were considered worth for clarification:

1.5.1. Concepts of knowledge management

The concept of knowledge management has attracted attention of researchers. Wijetunge (2002:85) elaborates on the relevance of knowledge management by arguing that effective

knowledge management in organisations requires knowledge managers. In the same line of thought, Prusak (1995:98) in the CIO magazine, recommends using librarians, whom he calls “information experts” as knowledge managers with experts at categorizing information, as these “information experts” are knowledgeable about content and relevance of existing information sources and can help filter information to prevent information overload.

Reitz (2004:388) defines the concept of knowledge as “information that has been comprehended and evaluated in the light of experience and incorporated into the knower’s intellectual understanding of the subject”. As for Applehans (1999:18), Knowledge is “the ability to turn information and data into effective action,” and he adds that managing knowledge means delivering the information and data people need to be effective in their jobs.

In order to fully understand the logic behind traditional information management and knowledge management, the following definitions of the concept of knowledge management by some leading management authors are worth giving. Davenport (1994) defines Knowledge Management as “a process of capturing, distributing, and effectively using knowledge”. Duhon (1998:9) on his part defines it as “a discipline that promotes an integrated approach to identifying, capturing, evaluating, retrieving and sharing all of an enterprise’s information assets”. These assets include databases, documents, policies, procedures and previously un-codified proficiencies as well as the experiences of individual workers (Duhon 1998:9). These experiences are considered as informative, because they belong to that aspect of knowledge management that includes not just conventional information and knowledge units, but also involves ‘tacit knowledge’ for example, knowledge that has not been captured in any format or explicit style (Feather & Sturges 2003:351).

Viewed from this perspective, Information management is the skillful exercise of control over the acquisition, organization, storage, security, retrieval, and dissemination of the information resources essential to the successful operation of a business, agency, organization, or

institution, including documentation, record management, and technical infrastructure (Reitz 2004:357).

The aforementioned definitions provide a clear understanding of the crucial need of the management of both external and internal organizational knowledge for the successful strategic operation of the organisations.

1.5.2. Multidisciplinary nature of knowledge

According to Dakir (2005: 14) KM is drawn from a vast number of diverse fields such as: organizational science, cognitive science, linguistics and computational linguistics, information technologies, information and library science, technical writing and journalism, anthropology and sociology, education and training. KM as a discipline started with the advent of the Information or Computer Age. Karadsheh, Mansour, Alhawari, Azar, and El-Bathy (2009:69) point out that KM has been seen as a fast response to weaknesses and threats that affect the way businesses are organized. They describe different conceptual frameworks for KM processes, emphasizing the developing phases such as knowledge infrastructure, knowledge combination, knowledge filtering, knowledge repositories, knowledge sharing and knowledge performance. Considering the theoretical perspective, many theories have been developed to study knowledge management, and most of these theories focus on the specific phases mentioned above.

This particular study investigated the role of Namibian ministerial librarians in knowledge management using the Bukowitz and Williams Knowledge Management (KM) framework (2000) (GET; USE; LEARN; CONTRIBUTE; ASSESS; BUILD / SUSTAIN, AND DIVEST). This structure has been chosen because it consists of different stages that address the themes of the study by giving the stages as guidance to effective and efficient knowledge management in ministerial libraries. The model was chosen because of its practicality seven stages that showed the visibility of librarians work in organizations, in terms of practicing knowledge management.

1.6. Chapter Outline

The mini-thesis is divided into five chapters. Chapter One gives the background and problem statement; Chapter Two focuses on the literature review that has been previously documented on the role of ministerial librarians in Knowledge Management. Chapter Three discusses the research design and the methodology undertaken by the study; Chapter Four provides the presentation and interpretation of data of the study and Chapter five provides the conclusion and outlines study recommendations.



CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

This chapter discusses relevant existing research of the same nature conducted by other researchers across the world. Studies focusing on ministerial libraries are very few across the globe, as are those of knowledge management in Namibia. Since the ministries are part of the public sector or government agencies, the main focus is the government or public sector. The objective was to ascertain how librarians in government ministries are managing internal (organizational/employees knowledge) and external (knowledge acquired outside the organization) knowledge. How they go about disseminating knowledge to the ministry employees so that they can contribute equally to the achievement of the ministries' strategic objectives. The present study reviews the literature that pertains to the following themes:

- Namibia as a knowledge economy,
- Characteristics of the ministerial libraries,
- Competencies and skills needed to practice KM in special / ministerial libraries,
- Importance of KM in government ministries,
- The perception of knowledge management in libraries,
- The practice of knowledge management in libraries (management of KM in ministerial libraries: collection /acquisition, organisation / storage, and dissemination and transfer & sharing),
- Education and training for knowledge managers,
- IT Infrastructure as enablers of KM in the ministry, and
- Challenges preventing the effectiveness of KM practice in ministerial libraries.

The literature survey focuses on studies done in America, Asia, Australia, Europe, and Africa. This review of previous literature is not limited to knowledge management in government

ministries only - knowledge management in the private sector, particularly in academic and corporate libraries; rather, it also includes literature that pertains to the understanding of the practice of KM in the two entities.

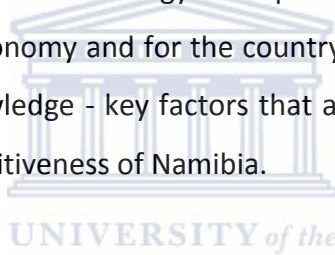
2.2. Namibia as a knowledge economy

There are some studies that investigated the issue of knowledge economy in a Namibia setting. In the study on Namibian Human Capital and Knowledge Development for Economic Growth with Equity, Malope (2005:14) points out that the political buy-in regarding the importance of knowledge in development has yet to translate into effective support for knowledge creation, management, and innovation. Evidence suggests that Namibia invests far less on Research & Development (R&D) than even other middle-income countries. The study indicates that, for instance, between 1989 and 2000, only 0.01% of the gross domestic product (GDP) was invested in Research & Development. Malope argues that there is currently no systematic process of monitoring expenditure on research at a national or even institutional level, and it is not clear how agendas of existing publicly funded research institutions are determined or whether they take cognizance of key development opportunities and challenges. There is as yet no system for recording research outputs and for monitoring their quality even at the university level. Neither the private sector nor higher education institutions seem to have compelling incentives for engaging in R&D.

Malope further argues that political leadership in Namibia is committed to developing strategies for acute awareness of the constraints to economic growth imposed by Namibia's limited capacity to effectively make use of knowledge to improve productivity. With regard to that, Malope's study was used by the Namibian government to measure its capability to improve the country's education system to integrate information communication technology (ICT) in all aspects of the economy. The report further emphasized that those current and projected needs must be established with regard to the types of ICT skills required by Namibia

to reach the Vision 2030 goal of becoming a knowledge economy (ICT sector performance review 2006).

Another document that has addressed the issue of Namibia as a knowledge economy includes, for example, the Namibia Third National Development Plan (NDP 3). This document is produced by the Office of the President (2008:19), and it identifies seven key result areas (KRA) that focus on the achievement of a knowledge-based economy and the building of a technology driven nation. The theme is based on the Vision 2030 objective of transforming Namibia into a knowledge-based, highly competitive, industrialised and eco-friendly nation, with sustainable economic growth and a high quality of life. It is further stated in the same document that NDP 3's seventh key result area also shows its apprehension about the innovative use of both tacit and codified forms of knowledge and technology to help the country advance from a resource-based into a knowledge-based economy and for the country to improve the people's access to information, technology and knowledge - key factors that are crucial in accelerating economic growth and enhancing the competitiveness of Namibia.



In addition to the above raised issues, one of the factors needed to contribute to the success of the country's knowledge-based economy is having effective information literate citizens. Namibia is said to be facing the problem of absence of a reading culture. However, the education policy of Namibia has highlighted the needs to create a community of learners who are equipped for life-long learning. With regard to that, Namibia has to strive to be part of the knowledge economy. It therefore needs a proper appreciation of the role of information literacy, a concept used to describe the ability of a person to acquire knowledge through primary sources such as books, journals and web sites, and secondary sources, such as libraries, archives and information services so as to be equipped to make informed and rational decisions (Smith, et al. 2008:10). They further point out that, for Namibia to succeed as a knowledge economy, people have to be information literate, that is to say, they must be able to recognise and describe a need for information, identify and select appropriate sources to meet the need, search the sources, identify relevant information, evaluate the information and finally, they

must use the information constructively. Viewed from this perspective, educators and librarians are needed to nurture these skills.

Namibia is trying its best to achieve the standard of being part of the knowledge economy. Resultantly, it hosted KM workshops of which the biggest was held in 2009 and focused on knowledge for development (it was jointly organised with the Centre for Technical Assistance and the University of Namibia). The goal of the workshop was to raise awareness of the importance of understanding the role of knowledge in development and to discuss what ways of understanding knowledge were most relevant to the contemporary challenges facing Southern Africa (Cummings 2010).

2.3. Characteristics of ministerial libraries

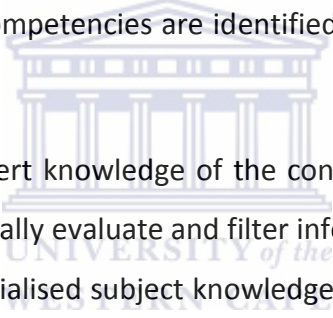
Ministerial libraries are part of government libraries, serving the Executive and staff of a branch of government. The contents and organisation of the collections should reflect the needs of its users and should typically include reports and semi-published or unpublished materials. Access to these collections may also be permitted to bona fide external researchers (Smith, et al. 2008:5). The primary role of ministerial libraries is to provide officials and policy makers in government with the information required for the formulation and execution of government policy and provision of services to the public. Owing to the small number of specialized libraries available, access is also given to members of the private sector, non-governmental organisations, members of the business community, students from tertiary education institutions, and members of the general public for their information needs (Smith, at al. 2008:38).

The directorate of the National Library and Archive Service (NLAS) under the Ministry of Education in Namibia is responsible for providing suitably qualified and experienced staff, professional leadership, in-house training and professional support on an on-going basis. The ministry concerned is responsible for the provision of functional accommodation, an adequate budget for the acquisition of print and electronic resources and continuous management supervision of the library service. The ministry is also responsible for providing suitable ICT

infrastructure including bandwidth to ensure reliable network access at reasonable access speeds (Smith, et al. 2008:38).

2.4. Professional competencies of ministerial / special librarians for knowledge management

In order for ministerial librarians to be able to respond with a sense of urgency to critical information needs and provide the information edge for the knowledge-based organisation, they require professional competencies that are related to the specialized librarians' knowledge in the areas of information resources, information access, technology, management and research as well as the ability to use these areas of knowledge as a basis for providing library and information services. Those competencies are identified by Marshall, Fisher, Moulton, and Piccoli (2003) as follows:

- 
- Librarians should have expert knowledge of the content of the information resources, including the ability to critically evaluate and filter information;
 - Librarians should have specialised subject knowledge appropriate to the business of the organisation or client;
 - Librarians should develop and manage convenient, accessible and cost-effective information services that are aligned with the strategic directions of the organisation;
 - Librarians should have the ability to provide excellent instruction and support for library and information service users;
 - Librarians should be able to assess information needs and design and market value-added information services and products to meet identified needs;
 - Librarians should use appropriate information technology to acquire, organise and disseminate information;
 - Librarians should have the ability to use appropriate business and management approaches in order to communicate the importance of information services to senior management;

- Librarians should develop specialised information products for use inside or outside the organisation or by individual clients;
- Librarians should have the ability to evaluate the outcomes of information use and conduct research related to the solution of information management problems;
- Librarians should continually improve information services in response to changing needs; and
- Librarians should be effective members of the senior management team and consultants to the organisation on information issues.

Other skills and competencies needed by librarians for effective knowledge management are identified in Koina (2002) as illustrated in table 1:

Table 1. Skills and Competencies for librarians to practice knowledge management

Knowledge management skills that librarians have	Attributes librarians may not necessarily have
Flexibility	Lateral thinking
Team skills	The ability to think in terms of the enterprise rather than the professional function
People skills	The power to persuade, to sell themselves and their skills in organisational context
Communication skills	The capacity to manage, rather than merely endure change

The ability to assess and evaluate information	Advocacy
How to create, record and store information effectively	Strategic planning ability
How to use information tools effectively	Marketing capacity
How to train and educate the client	Able to analyse their roles and identify areas for improvement
Are client service oriented	Project management capacity

In an empirical study conducted by Ajiferuke (2003:254), librarians identified team working, communication, and networking skills as the key organizational skills needed to participate in knowledge management programmes. Besides, librarians also identified the ability to use information and knowledge technologies, and document management skills.

2.5. Importance of knowledge management in government ministries

Knowledge has been recognised and acknowledged widely as a critical organisational resource for any firm irrespective of location, size (small, medium, or large organisation) and type (public or private) (Chong, et. al. 2011:497). Chong and colleagues further argue that effective management of knowledge has been recognised as an important strategic tool in achieving specific objectives of an organisation and even that of a country so as to sustain economic growth and to gain competitive advantage as well as to survive and succeed in the knowledge – based economy (k-economy).

As reported in Dataware Technologies Corporate executive briefing (1998:1), knowledge management is important in organisations in order to avoid wasting resources by re-inventing knowledge, spending excess time locating difficult-to-find knowledge and unsuccessfully absorbing and using the growing volumes of new knowledge flowing into the organisation every day.

Khoza (2009:6), in a conference paper presentation on knowledge management for service delivery in the South African public sector, stresses how important knowledge management is in the public sector. Khoza (2009:6) believes that this knowledge enables to generate and share knowledge to improve service delivery, and share knowledge across government thereby creating an open society and e-government learning, building up the capacity of knowledgeable knowledge workers across government, building customer relations by providing better customer solutions and communication thus becoming a knowledge society and knowledge economy. Khoza (2009:8) further notes that generally all governments around the globe are interested in knowledge management to achieve two main objectives: 1) to provide quality services, and 2) to maintain an acceptable, just, orderly and secure society.

Syed-Ikhsan and Rowland (2004b:243) in their study on benchmarking knowledge management in a public organisation in Malaysia found that it is very important for public organisations to have a knowledge management strategy that is well understood by all employees. Such knowledge management strategy is expected to enable employees to know their individual roles or their roles with other employees. It also enables to keep them aware of the kind of knowledge that is needed to be managed and shared by them. This finding from Syed-Ikhsan and Rowland shows that with the existence and awareness of knowledge management strategy in ministries, employees will be able to deposit knowledge relevant to the success of the organisation in the library as the main or common repository of knowledge for the organisation with equal access via the knowledge system, and databases.

The laying down of a solid foundation of knowledge management in the public sector, as Vacher (2001) mentions it in an article about unlocking government knowledge: the case of

knowledge management in the public sector, is essential in order to make everyone involved with a knowledge management project to clearly understand the strategy and objectives and to realise that both technical and cultural factors contribute to ultimate success.

Syed-Ikhsan and Rowland's (2004b:244) findings further indicate that managing knowledge in government ministries could improve work quality, help employees have up-to-date information, and improve efficiency as employees get empowered through the skills and information assimilated. The findings also reveal that managing knowledge in government ministries could improve decision making process and make employees able to respond effectively to customers' needs. Syed-Ikhsan and Rowland's study therefore recommends that the responsibility for managing knowledge in the ministry should be everyone's job, and not an exclusive task to be conducted by only librarians, knowledge managers / workers as responsible for KM.

Vacher (2001) clarifies that one key factor for knowledge management to succeed in any organisation is to find a way to capture the tacit knowledge that exists in people's heads as well as explicit knowledge that exists in documents. Vacher further elaborates on this point by affirming that it is possible in government to retain more of the knowledge that seeps out year by year as long-time specialists leave the service, taking their tacit knowledge with them. This can be made possible by codifying even a small portion of this knowledge. In this perspective, the organisation will hand the next generation of public servants a tool that should help them avoid making the same mistakes all over again, as well as considerably shortening the learning curve required to become a domain expert ready to serve.

2.6. Perceptions of knowledge management practices by librarians

According to Jantz (2001:34), knowledge management is not a concept that is routinely used within libraries since it is considered to be primarily a business activity in which the use and reuse of knowledge creates business value in terms of profits and improved return on investment. Nevertheless, librarians can use their traditional skills to assume a new function of

knowledge management which will complement the traditional library services function, which is concerned with selecting, acquiring, organizing, disseminating and providing access to recorded information to meet the needs of specific groups of people (Mchombu 2010).

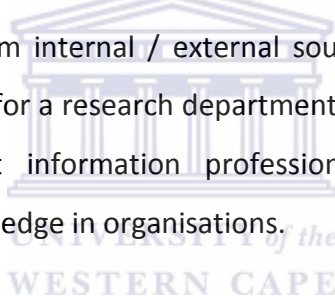
According to Abell and Oxbrow (2001:149), employers perceive librarians as possessing valuable skills, yet they believe that librarians are actually back office workers who provide services and resources to the organization under the direction of real managers and are, in many cases, viewed as a support to the prime activity, and therefore they are not a central concern to the organisation. They further claim that the theoretical base and practical skills of the information profession have often not been recognised mostly because about 80 – 95% of the information used in the organisation is generated internally.

Koenig (2004:8) states that information professionals need to make their skills known to the KM community and the KM community needs to seek out information professionals and bring them more into the KM fold to avoid reinventing the wheel. With regard to this, Mchombu (2010) in his presentation on the role of libraries in knowledge management & economy at the University of Stellenbosch, urges librarians to move from managing traditional information to practicing knowledge management by using information content management to strengthen the explicit knowledge components, and providing access to targeted subject information which adds value to economic development activities. He further elaborates that librarians can adapt relevant KM applications to their jobs. Those applications include, among others, capturing or harvesting organisational knowledge, adopting knowledge tools to maximise reuse, tools to network and achieve interaction for example fostering learning groups such as communities of practice (COP), best practice sessions, learning organisations, and involving top managers in creating knowledge sharing environments.

2.7. Practice of knowledge management in libraries

Despite the fact that there is little evidence of the involvement of librarians in many organizations' knowledge management programmes, some empirical research has provided evidence of knowledge management in libraries or librarians' involvement in knowledge

management programmes in their organisations. A study by Ajiferuke (2003:253) produced empirical results based on the 386 librarians/information professionals working in Canadian organizations that were selected from the Special Libraries Association's Who's Who in Special Libraries 2001/2002. Ajiferuke reported that 86% of the librarians who were interviewed regarded themselves as key members of the knowledge management team and considered their roles to be in designing information architecture, the development of taxonomies, and content management. Yet, this study is not consonant with a study conducted with corporate librarians in Taiwan by Chen and Chiu (2005:1235-1236) who found little involvement of corporate librarians in knowledge management activities. Corporate librarians are more confident when managing explicit knowledge resources, which is similar to traditional information management. Choo (2000) indicates that the HP Labs research library introduced KM initiatives, developing a departmental KM tool in which the library created a web tool that brought together information from internal / external sources and different disciplines, and organised it by subject categories for a research department that was maintained by the library staff. Choo (2000) argues that information professionals can manage knowledge by understanding the nature of knowledge in organisations.



According to Broadbent (1998), librarians should address knowledge management in steps. These steps are: making knowledge visible, building knowledge intensity, developing a knowledge culture, and building knowledge infrastructure. Jain (2007:385) in a study of knowledge management in academic libraries in East and Southern Africa, which investigated 20 academic libraries in nine African countries, points out that academic librarians share their knowledge and experience internally through professional discussions. He further states that only 35% of the libraries had some system to capture their staff's tacit/internal knowledge. This implies that 65% of the libraries failed to capture the tacit knowledge of their employees.

Maponya (2004) argues that academic libraries need to develop ways of capturing their internal knowledge, devise systems to identify people's expertise and develop ways of sharing this. For

Maponya, the formal processes of capturing knowledge can include collating internal profiles of academic librarians and also standardizing routine information-update reports.

2.7.1. Knowledge collection and acquisition in libraries

Librarians have the knowledge and training to design content representation schemes that reflect the information needs of the organisation (Choo 2000). Effective functioning of government rests on effective acquisition and dissemination of knowledge (Cong and Pandya 2003:29). In a master's thesis project on the management of indigenous knowledge in Swaziland, Dlamini (2005:89) found that librarians collect and acquire indigenous knowledge through visits to rural and urban areas, inter-library loans and resource sharing. Therefore, all librarians are urged to move out of their comfort zones and go out to departments in the ministries to collect and acquire knowledge held in different departments.

Libraries, though restricted by limited funding, technology, staff, and space, must carefully analyse the needs of their users and seek to develop cooperative acquisition plans to meet these needs. Librarians need to conduct library assessment and evaluation of the collection from library users as they are considered to judge quality assessment which has been advocated for several reasons such as: to gain insight into quality, for political benefit, to establish demand, to assess how well needs are met by the services, and by assessment of topical relevance and usefulness (Nitecki 1996:183). The assessment or evaluation are conducted through market survey which is intended to help librarians understand users' perceptions, and thus improve the service quality that better meet users' information needs (Thompson, Cook, and Kyrillidou 2006:221).

After the thorough assessment and evaluation of the library knowledge contents/collection, librarians decide upon weeding contents that are obsolete and not meeting the information needs of the organizations. Weeding enhances libraries' reputation for reliability and currency

and it builds public trust, and it allows librarians to keep up with collection needs by having greater knowledge of the collection (Texas State Library and Archives Commission 2008:13).

Effective and efficient librarians select knowledge / information and include them in the online public access catalog (OPAC) by hard links, and create systems for the reviewing and updating of the resources. Information on the web can be very useful if librarians can employ advanced artificial intelligence tools to surf the internet and to select, find, arrange, classify, and automatically deliver the needed information to each user based on his / her special interests and needs (Lee 2007).

Upon the acquisition and collection of knowledge, the gathered knowledge have to be carefully managed in either physical or electronic media form to allow the sustainability, which include updating, and weeding of the collection of either form. Emojorho (2009) described collection management as the process of the selection and acquisition of library materials, considering the user's current needs and future requirements. It is about managing the use, storage, and organisation of the collection, and making it accessible to users. The library collections include both print and electronic resources acquired internally and externally by the librarian. Emojorho (2009) states that librarians are very privileged, with the availability of the ICT infrastructure they can use the online networks for advanced book selection, book ordering, and book processing using data from large databases such as The Online Computer Library Catalog (OCLC) and the Library of Congress. Collection management is the process of collecting and acquiring knowledge for the library includes activities such as: analysis of users' needs, inter-and-intra – library communication, policy development, budgeting and allocation of resources, contract negotiation, macro-evaluation for selection, preservation or withdrawal of stock and system evaluation (Emojorho 2011).

2.7.2. KM organisation and storage

Knowledge maps as described in Data-ware Technologies (1998) present users with the big picture of an organisation's intellectual capital and allow users to have access to information

resources they find relevant. It was found that organising knowledge based on the physical systems where the information resides was the most commonly and widely used technique. This is because it is commonly agreed that it is the classification scheme that helps users find information quickly by showing where the information they need resides. However, the classification scheme appears to be of little use to the users that are computer illiterate and who are not interested in learning the information technology architecture of the organisation. Viewed from this perspective, the practice of KM organisation and storage in Namibia may be said to be weak, as reported by Nengomasha (2003:64) in a study conducted in one of the ministries. According to this report, it was clearly demonstrated that there was a lack of a records management system in place, coupled with an absence of the use of classification schemes, retention schedules, and systematic disposal of records. These shortcomings logically resulted in badly run offices, together with poor retrieval of information.

Lee (2007) points out that most libraries have developed, and are maintaining an integrated online public access catalogue (OPAC) with both internal and external resources in all formats. However, what is more important is that the librarians further need to go beyond explicit knowledge and develop means of capturing all that tacit knowledge that is relevant to their users, their organisations, and to the internal operation of libraries. Viewed from this perspective, knowledge management systems must be structured to capture tacit knowledge that is typically found for example, in the answer to questions such as: why was this report written? Where else can that result be applied? What was the outcome of this proposal? And who else understands the report contents? (Dataware Technologies 1998).

KM organisation and storage through the traditional methods of cataloguing and classification, already barely adequate to handle the finite number of books, journals, and documents, are completely inadequate when it comes to dealing with the almost infinite amount of digital information in large electronic databases and on the internet. Librarians are therefore encouraged to use the Dublin Core metadata and the Cooperative Online Resources Catalog (CORC) as new approaches to capturing Web information by describing them in standard

format and making them easily searchable by users (Lee 2007). Lee elaborates that recent developments in knowledge management systems have come up with other new methods of capturing digital information in large electronic databases and on the internet such as data mining, text mining, content management, search engines, spidering programs, natural language searching, linguistic analysis, semantic networks, knowledge extraction, concept yellow pages, and such techniques in information visualization as two-dimensional or three-dimensional knowledge mapping (Lee 2007).

Librarians are also metadata specialists in KM, able to describe and dictate management and preservation strategies for digital information as well as world knowledge content experts able to keep updated on international news users in all areas of specialisation (Jain 2009).

2.7.3. KM dissemination / transfer / sharing

Effective knowledge management requires creating a supportive, collaborative culture and eliminating traditional rivalries. Therefore, since the concept of knowledge is power and that it is taken to mean that to stay strong, one has got to hide and protect what one knows, and people are not likely to embrace the concept of sharing resources (Data-ware Technologies 1998). Tacit and explicit knowledge can both be transferred from one person to another. Al-Hawamdeh (2002) claims that tacit knowledge which is in the form of skills and competencies can only be transferred from one person to another through training and interaction. Al-Hawamdeh further points that the “know -how” knowledge which according to the researcher is tacit knowledge, can be documented and the knowledge can be transferred through an independent learning process. That is why it is usually agreed that, knowledge creation activities are products of people interacting with people, people interacting with data and information, people interacting with systems and people interacting with the environment in which they operate (Al-Hawamdeh 2002).

Syed-Ikhsan and Rowland (2004a:101) in their study on knowledge management in a public organisation found that in order to be effective, the notion of a knowledge sharing culture

needs to be understood inside the organisation for the transferring and dissemination of knowledge from one person or group of people to another to occur. They further point that in an organisation with a knowledge sharing culture people would share ideas and insights because they see it as natural, rather than something they are forced to do.

Rooi and Synman (2006:266) state that for the transferring of skills to partake in the enhancement of organisational performance, librarians have to develop information literacy programmes to assist employees and users to:

- Access and gather data in order to organise and communicate information.
- Navigate and integrate sources, including electronic resources.
- Assess and evaluate information found or knowledge shared
- Create, record, store and archive information.
- Identify the potential value that relevant information can add to business processes.
- Properly use information technology facilities.
- Filter and discard irrelevant information.
- Make decisions based on validated information.
- Define an organisation's information needs and provide suggestions on how to satisfy these needs.

The researcher's experience in working in the library suggests that, librarians need to be well equipped to provide the information literacy training and educate users to become information literate. Knowledge gained by employees through training will enable them to translate their knowledge into the organisations' routine, competencies, job descriptions and business processes, plans, strategies and culture. This appears to be the reason why employees should be given training to improve their knowledge and capabilities (Syed-Ikhsan and Rowland 2004a:101). Libraries in general have various types of resource sharing and networks that are expanded by the rapid development of the computer, telecommunication, networking, and digital technologies. With those technologies libraries can become members of different

consortia at the same time for various types of cooperative work and resource sharing, such as using the online computer library catalog (OCLC).

Librarians should develop inventories for the library staff which should be made searchable and accessible through electronic databases. Librarians should also encourage the transfer of knowledge and experience from experienced staff to new staff members, through informal seminars and brownbag sessions scheduled at regular intervals and at convenient times where staff can interact and exchange lessons learned, the best practices and other specific experiences and knowledge (Lee 2007).

Librarians and other information workers in Namibia have established a national information workers association (NIWA) that provides a platform for the exchange of ideas and creates a network to contribute to the knowledge base of the library profession through sharing of best practices and experiences to improve organisational performance. The association members exchange ideas and knowledge via an emailing list called NAMINFO and through interaction at NIWA meetings. NIWA members have opportunities to network with local, regional and international librarians through attending conferences for the World Library and Information Congress (WLIC), and Standing Conference of Eastern, Central and Southern Africa library and Information Associations (SCECSAL) (Mwiiyale 2007:9). The directorate for the Namibian Library and Archives Services (NLAS) is responsible for the capacity building of the librarians and has so far managed to send a few librarians to pursue their post graduate studies in the United Kingdom. The directorate also provides full in-service training that consists of short courses facilitated by external training service providers or in-house by experienced staff. Internship is also arranged for new graduates who have completed a two-year or four-year tertiary librarianship program (Smith, et al. 2008:38).

Komanyane (2010:54) in a study on knowledge management in the public sector in Botswana found that training offered to government employees is not specifically on KM practices, but only related to their job description or requirements. These findings provide evidence on the

need for information literacy training in the government ministries. Komanyane's study reveals that the sharing of knowledge gained / acquired in courses, seminars and conferences at departmental meetings is momentarily because by the time the staff leaves the meeting room the knowledge has disappeared from their heads, unlike having the presented information available in electronic or printed form where one can go back for further research. Therefore the study suggests that if the knowledge is stored in the library or knowledge management system (KMS), staff can refer to it at any time and the knowledge will form part of the organisational knowledge base or memory. Chong, et al. (2011:502) support the idea that a knowledge sharing culture will not arise in an organisation unless its employees and workgroups display a high level of trust and co-operative behaviour. And thus top management and leaders need to foster a democratic culture and to sustain a knowledge-sharing environment since knowledge sharing is the cornerstone of knowledge management.

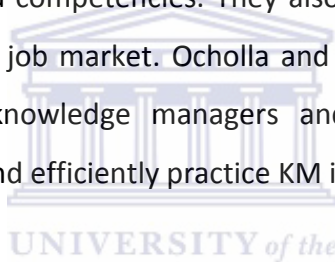
2.8. Knowledge management education and training for librarians

Ajiferuke (2003:255) suggests in his findings that librarians' professional bodies should develop a program of awareness-raising activities that target corporate sector organisations to demonstrate the potential roles that librarians can play in knowledge management programs, and that these bodies should organise courses to educate the librarians in knowledge management concepts and principles. Following this suggestion, Yaacob, Jamaluddin, and Jusoff (2010:19) argue that changes to a national philosophy of learning and education have to be made in order to accomplish the goal of creating knowledge workers. These changes include, among others, the promotion of information literacy and reading in the education curriculum and the stressing of the role of knowledge in the economy.

Viewed from this perspective, training of knowledge workers may entail learning, relearning and unlearning processes which may additionally include some of the following aspects: a structuring process, removing knowledge sharing barriers, aligning local knowledge, creating process triggers, providing platforms for collaboration, building knowledge repositories, introducing cross functional tools, infusing external knowledge, and enabling tacit knowledge

transfer (Yaacob, Jamaluddin, and Jusoff 2010:19). Yaacob, Jamaluddin, and Jusoff, further noted that at the professional level, most library schools have made concerted efforts to add new KM elements to the curriculum. On their part, Chen and Chiu (2005:1228) point out that, corporate librarians were forced to acquire new skills and competencies for knowledge management. These skills are: defining knowledge assets; providing, capturing, and structuring knowledge, education and training in access and sharing tools and assisting users to exploit knowledge creatively.

Ocholla and Bothma (2007:66) provided evidence in their study on trends, challenges and opportunities for LIS education training in Eastern and Southern Africa and of knowledge management courses being offered in South African universities to equip graduates with knowledge management skills and competencies. They also emphasized continuing education and training for graduates on the job market. Ocholla and Bothma's study provides evidence that librarians are trained as knowledge managers and are equipped with knowledge management skills to effectively and efficiently practice KM in their institutions.



2.9. Information infrastructure as enablers of knowledge management

Technology plays an important role in managing knowledge in an organisation and it can be considered as an effective means of capturing, storing, transforming and disseminating information. Although ICT is not the answer to the success of implementing knowledge management, ICT infrastructure allows individuals in the organisation to create and share knowledge effectively and contribute to the performance of knowledge sharing (Syed-Ikhsan and Rowland 2004a: 104).

The Namibian ICT infrastructure ranks fairly high in Africa with a good measure of availability of the internet bandwidth (close to 30MB) to and from the country. Although the ICT infrastructure is good, the study reveals the lack of human capacity to effectively utilise the benefits of the infrastructure. This therefore limits the capacity to effectively utilise the internet

as information – gathering, organising and dissemination tool. The main reason that accounts for this lack of human capacity is the lack of linkage between the ICT infrastructure and the content / knowledge it should carry and the knowledge workers who provide that content / knowledge. As a result, the current infrastructure is found to be underutilised as a potential vehicle for the transmission of knowledge to diverse users, as revealed in a study by Malope (2005:15).

Related to Malope's study is the study by Smith, et al. (2008:41) who found that there are few qualified librarians in the Namibian government ministries who are capable of serving the ministry library users effectively. It is no doubt that qualified library staff makes effective use of all relevant facilities and resources (electronic networks and subscriptions to publications and databases) to meet the information / knowledge needs and requirements of user communities. Smith's study further reports that all ministerial libraries are equipped with computers but not all have computers for the patrons / library users.

Despite the issues of unskilled human resources to fully utilise IT infrastructure, the government of Namibia is not discouraged to partake in the knowledge economy. Consequently, it resulted in the government of Namibia to introduced technological infrastructure facilitating KM practices by the implementation of the Electronic Documents and Records Management System for the public service of Namibia (EDRMS) to take advantage of ICT to effectively manage government knowledge, with the objective of ensuring a risk-free records and archival system for public services. The system is used to capture, organise, retrieve, and disseminate records that the public servants generate during the conduct of official business. The proposed information to be scanned and uploaded in the system are official correspondences, memoranda, policies, regulations and procedures, contracts and agreements, staffing (appointment letters /resignations / promotion), financial records (contract/invoices/requisitions), circulars, cabinet decisions, visa applications / work permits, minutes of meetings and others (Office of the Prime Minister of Namibia: n.d.).

Lee, (2007) recommended that a well-designed and operational knowledge management system should be built on the existing computer and information technology infrastructure to

facilitate the implementation of KM in the organisational structure. Intranet, extranet, and internet should be upgraded and software programs available to facilitate the capture, analysis, organisation, storage, and sharing of internal and external information and knowledge resources for effective exchange among users.

Komanyane's (2010:41) master's thesis project finds that ICT enables rapid access and retrieval of information and can support teamwork and communication among organisational members; therefore the Botswana government departmental databases use ICT to store policies, regulations and procedures. Komanyane found that most information stored in the databases is explicit knowledge, but noted that listing information on staff competencies and expertise in databases (corporate yellow pages) has been found to enable knowledge sharing in departments as employees now know who knows what. Knowledge types captured in databases are identified as staff competencies and areas thereof, staff presentations, staff members, updated training manuals, and policies, regulations and procedures.

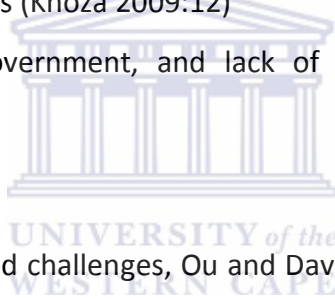
Syed-Ikhsan and Rowland (2004b:242) in their study on benchmarking knowledge management in public organisations in Malaysia, found that electronic mail, online information sources and the internet help employees develop and gain knowledge in the organisation, with Chong, Sallem, Syed Ahmad, and Sharifuddin (2011:509) concluding that technological components such as ICT infrastructure and software, knowledge sharing technologies, and communication technologies have been found to be highly significant KM enablers in the organisation.

2.10. Challenges facing librarians to effectively practice knowledge management

Librarians in all sectors are said to be confronted with several challenges when it comes to the practicing of knowledge management in the workplace. Jain (2009) has identified some challenges faced by librarians these include:

- Content development in digital format
- Continuing education and training programs on KM (Muller n.d.; Ou and Davison 2007)
- Financial support (Ou and Davison 2007)

- Technological infrastructure
- Capturing of tacit knowledge
- Creating innovation in teaching, learning and research methods to improve the transfer of knowledge
- Succession planning, the value of librarians in the organisation, and management support (Muller n.d.)
- Change trends
- Cultural challenge to develop the right culture and environment of sharing and creating knowledge (Jain 2007)
- Challenges of being excellent knowledge subject experts
- Government bureaucratic structure / institutional arrangements, and Complex decision making process and systems (Khoza 2009:12)
- High staff turnover in government, and lack of commitment to KM (Komanyane 2010:47).



In addition to the above mentioned challenges, Ou and Davison (2007) identified the following other challenges that are faced by librarians. These challenges include: lack of training, limited resources, organisational structure, communication problems, poor knowledge sharing among colleagues, poor knowledge contribution to KMS by individuals, and lack of standardised practice in knowledge storage and transfer. These challenges relate to Komanyane's (2010:49) study that reported that, in some ministerial departments, there are no KM systems, not all government employees are connected to the internet which makes it difficult for them to access information. Komanyane concluded that, there was a need to define what KM is to the ministries' employees to ensure knowledge transfer from generation to generation.

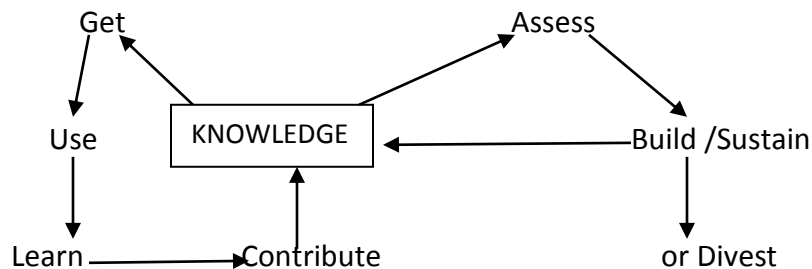
2.11. Theoretical framework

This section presents the theoretical framework used by the researcher to inform this study. In the different studies that investigated knowledge management, studies on Knowledge management have adopted different theories. Among the others are those of: Nonaka and Takeuchi (1995) *Knowledge Creation Spiral Model*; Goh, Chua, Luyt and Lee (2008) *base on knowledge access, creation, and transfer mechanism for KM in web portals*; Senge (1990) *Learning Organisation and Organisational Learning framework*; and Edvinsson's (1997) *Intellectual Capital Model*. In this particular study the researcher investigated the role of Namibian Ministerial Librarians in Knowledge Management by using the Bukowitz and Williams Knowledge Management (KM) framework (2000). This framework has been chosen because it consists of different stages that address the themes of the research study by giving the stages as guidance to effective and efficient knowledge management in ministerial libraries.

2.11.1. The Bukowitz & Williams Knowledge Management (KM) (2000) model

Bukowitz and Williams (2000: 8-9) describe a knowledge management process framework that outlines how organizations (libraries as independent entities) generate, maintain and deploy a strategically correct stock of knowledge to create value to the organization. The model addresses how volumes of knowledge can be managed effectively and efficiently using different stages of KM processes discussed as follows:

Figure: Bukowitz & Williams (KM) Model (2000)



Bukowitz & William's model is a seven stage framework that articulates around key concepts as presented in the aforementioned figure.

First stage: GET: This stage consists of seeking out information that is needed in order to make decisions, solve problems, or innovate. Bukowitz & Williams affirmed that information professionals have traditionally fulfilled this role, and they insist that these professionals are needed now more than ever in order to match information seekers with the best possible content by knowing the whereabouts of knowledge resources and how to access them. Information users need to be connected not only to content but also to content experts, that is, the people who have the tacit knowledge. The tacit knowledge is according to the Business Dictionary (2011) any unwritten, unspoken, and hidden vast storehouse of knowledge held by practically every normal human being, based on his or her emotions, experiences, insights, intuition, observations and internalized information. Tacit knowledge is integral to the entirety of a person's consciousness. It is acquired largely through association with other people, and requires joint or shared activities to be imparted from one to another.

Stage two: USE: This stage deals with the means of combining information in new and appealing ways in order to foster organisational innovation by focusing on the individual and then on the group to encourage the use of knowledge. The researcher will use the USE stage to find out how librarians ensure that the knowledge content collected in stage one is being utilised by employees and ordinary users of the library. The librarian's task is to organise knowledge content, maintain timelines, completeness, and accuracy, profile users' needs, as well as to administer to users new knowledge repository technologies training, also known as information literacy training.

Stage three: LEARN: This stage refers to the formal process of learning from experience as a means of acquiring a competitive advantage when learning the knowledge content. Learning is an essential process that follows after the acquisition and application of content; therefore, it is

important to avoid circumstances whereby the content is simply warehoused somewhere and does not serve to increase or improve knowledge or foster a difference in the way things are done within the organisation. In the learning stage the researcher focuses on how ministerial librarians share knowledge amongst themselves.

Stage four: CONTRIBUTE: This stage deals with getting employees to share their knowledge via the communal knowledge base (repository, intranet for knowledge transferring). With the CONTRIBUTE stage, the researcher concentrated on how different ministerial departments contribute their knowledge to the library to be processed and be made accessible to the entire organisation. (Knowledge conveyed via project reports; workshops, seminar, conferences; & short courses reports).

Stage five: ASSESS: This stage refers to the evaluation of intellectual capital and requires the organisation to define its mission, critical knowledge as well as the mapping of current intellectual capital against future knowledge needs. The researcher investigated how ministerial librarians evaluate the quality and relevance of knowledge held in the library.

Stage six: BUILD & SUSTAIN: Ensures that there will be intellectual capital in the future that will keep the organisation viable and competitive. In this stage the researcher investigated how librarians ensure that knowledge assets with the organisational knowledge can sustain the knowledge for future use, and how the directorate of library and information service builds and sustains ministerial librarians.

Stage seven: DIVEST: In this final stage, the organisation needs to examine its intellectual capital in terms of the resources required to maintain it. This might include terminating training programs, redeploying staff, replacing or upgrading technologies, ending partnerships or contracts as well as the weeding of the library collection. This needs to be done after a strategic decision-making process.

2.11.2. Previous Studies that adopted Bukowitz & Williams knowledge management (2000) Model

Bukowitz & Williams (2000)'s model has been used in many studies by various researchers from other disciplines outside the field of Library and Information Science. Amongst these studies, is the study by Davis & Pacheco (2001) on the Rapid Appraisal of Organisational Knowledge Management Needs: the case of an Information Technology Services Company that adopted the model to measure KM processes in a seven-step cycle of knowledge production and use, with 20 diagnostic questions addressed to each step in the model. Questionnaires were used on its original form during a KM workshop in a company called InfoTech whereby middle and senior managers discussed InfoTech's KM challenges at each step of the knowledge cycle model and assessed its KM capabilities. The seven steps used were: getting knowledge, using knowledge, learning from knowledge, contributing to knowledge, assessing knowledge, building and sustaining knowledge, and divesting knowledge.

Cooper (2006) in the study of Knowledge Management and Tourism conducted in Australia used Bukowitz & Williams' model to measure the contribution of the management goals of the tourism organization so that the knowledge management project matches business objectives.

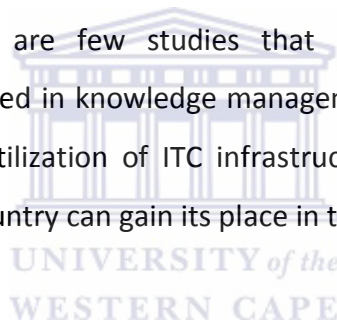
Hamid and Aminuddin (2008) in their study on Knowledge Management (KM)- A new management paradigm in MINT, have adopted Bukowitz & Williams' (2000) model by dividing the seven steps into two streams which are: tactical, and strategic. The tactical side of the KM process which is the basic steps involves people gathering information they need for daily work, use knowledge to create value, learn from what they create and, ultimately, feed this knowledge back into the system for others to use as they tackle problems of their own. The strategic stream which is a more long range process of matching intellectual capital to strategic requirements, involves a continual assessment for existing intellectual capital and a comparison with future needs, so as to build and sustain intellectual capital, and divest knowledge to create

higher value. With regard to that an organisation will require a new form of management and a new contract with the individuals that comprise the system and determines its success.

Literature searches on the adoption of the Bukowitz & Williams' (2000) model within library and information research scope, found no hints for empirical evidence.

2.12. Conclusion

The reviewed literature has shown how knowledge management is vitally important to the organisation, but poorly practiced in the public sector. Several studies have indicated that knowledge management should be the responsibility of everyone in the organisation, with few studies indicating that an organisation should have people or specific groups responsible for knowledge management. There are few studies that have shown librarians practicing knowledge management or involved in knowledge management programmes. The study done in Namibia indicated the underutilization of ITC infrastructure in government to effectively manage knowledge so that the country can gain its place in the knowledge economy.



CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1. Introduction

A qualitative research approach was employed to collect data from librarians working in diverse ministries under the establishment of the Namibia Libraries and Archives Services (NLAS). The reason for this approach was that it enabled the researcher to unearth rich data that could not be obtained with quantitative methods; data which included answers obtained through interview probing. Its flexibility had provided complex diverse descriptions that explained how people conduct business the way they do, by asking open-ended questions that allows participants the freedom to respond as they feel. The choice by the researcher of a qualitative method aligns with Creswell (2007:40) who asserts that qualitative research is used when researchers are in need of complex understanding of the issue, that can only be established by talking directly with people, going to their places of work, and allowing them to tell their stories unencumbered by what researchers expect to find or what they read in the literature. Qualitative research makes researchers understand the context in which participants in a study address a problem or issue, and to help to explain the linkages in causal theories or models.

This chapter discusses the design of the study with the methodology undertaken to gather research data, the types of research techniques employed in the study, the research population and sampling, and the procedures. Babbie (2010:90) defines research methodology as the methods, techniques, and procedures that are employed in the process of implementing the research design or research plan as well as the principles and assumptions that underlie their use.

3.2. Qualitative research approach

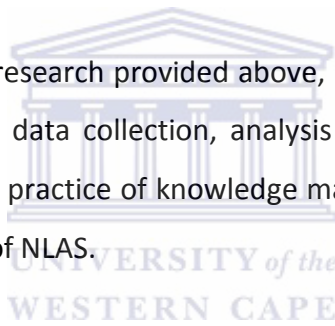
A number of definitions of qualitative research have been developed to provide fundamentals understanding of the methods. Creswell (2007:37) defines qualitative research as:

The method that begins with assumptions, a worldview, the possible use of a theoretical lens, and the study of research problems inquiring into the meaning individuals or groups ascribe to a social or human

problem. To study this problem, qualitative researchers use an emerging qualitative approach to inquiry, the collection of data in a natural setting sensitive to the people and places under study, and data analysis that is inductive and establishes patterns or themes. The final written report or presentation includes the voices of participants, the reflexivity of the researcher, and a complex description and interpretation of the problem and it extends the literature or signals a call for action.

Henning, Rensburg, and Smit (2004:5) state that qualitative research investigates the qualities of phenomena rather than quantities. Qualitative inquiry thus seeks to find out not only what happens but also how it happens and why it happens the way it happens. Therefore the qualitative research involves an inquiry in which the qualities, the characteristics or the properties of phenomena are examined for better understanding and explanation.

The two definitions of qualitative research provided above, have mapped out clear hints about the expectation upon the study's data collection, analysis and presentation. As indicated in section 3.1 the study explored the practice of knowledge management by ministerial librarians working under the establishment of NLAS.



The directorate of NLAS under the Ministry of Education is assigned with the responsibilities for implementation of national and international standards relating to library and information services. Its purpose is to secure equal access to knowledge and information for lifelong learning by creating and maintaining professional expertise and nationwide network of libraries / information centres. The directorate comprises of five divisions namely: The Community Library Service (CLS); The Education Library Service (ELS); The Ministerial Library Service (MLS); The National Library Service (NLS); and the National Archives of Namibia (NAN) (Ministry of Education 2012).

This research study focuses specifically on the MLS that provides professional expertise to supervise, support and coordinate special library and information services in government ministries with the goal of rendering technical and scientific information to decision-makers,

researchers, students, business communities, technicians as well as other professionals covering needs and services on key areas of the National economy (Ministry of Education 2012).

3.3. Methods of data collection

Methods of data collection are important ways of gathering information that enable a researcher to find relevant data in line with the study objectives. Qualitative studies use a variety of empirical techniques for data collection of which interviews and observational techniques were found to be relevant to this study.

3.3.1. Qualitative semi structured interviews

In this study, semi-structured interviews were used as a means for obtaining information from librarians working in the ministerial libraries. This method enabled the researcher to get insights, opinions, attitudes and experiences generated by the librarians' views on knowledge management and how they are practicing it in the ministerial libraries, guided by the stages (Get, Use, Learn, Contribute, Assess, Build & sustain, and Divest) of the knowledge management theory of Bukowitz and Williams (2000). The interviews were aided by the use of a digital tape recorder to record interview sessions.

Interviews are one of the common methods of data collection used in qualitative studies. According to Babbie (2010: 274) an interview is a data –collection encounter in which one person (an interviewer) asks questions to another person (a respondent). Babbie added that the interview is a method that involves more active inquiry by asking people questions and at the same time record their answers. The qualitative interview is based on the set of topics to be discussed in depth rather than based on the use of standardised questions, for instance, that are used in quantitative research. An earlier definition of an interview is according to Maso (1987:63):

A form of conversation in which one person- the interviewer – restricts himself or herself to posing questions concerning behaviour, ideas, attitudes, and experiences with regard to social phenomena, to one or more others –the participants or interviewees-who mainly limit themselves to providing answers to these questions.

Qualitative research looks for a true understanding of what is happening, therefore, the interviews are usually not entirely pre-structured with respect to content, formulation sequence and answers, neither are they left entirely open, in this regard, they are called Semi-Structured or half- structured interviews (Boeije 2010:62).

Semi-structured interviews may be conducted face – to - face or by telephone or they may be conducted through the modern social media such as through an inter-video link.

Every method has its strengths and weaknesses; in this regard Neuman (2006:301) has identified some advantages and disadvantages of conducting qualitative interviews which are presented below.



3.3.1.1. Advantages of qualitative interviews (face to face)

The following are the advantages of using the face to face interview as a method of data collection:

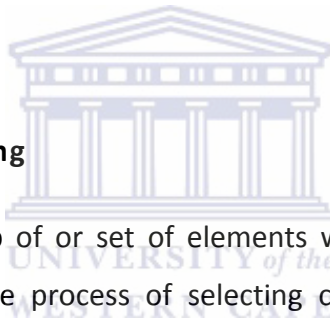
- It records highest response rates and permits the longest questionnaires to be completed with ease;
- Researchers can observe the surroundings and can use non-verbal communication and visual aids;
- It is flexible in that researchers can ask all questions with extensive probes;
- Researchers can follow up for more clarification on information provided;
- Establishment of rapport can build trust between the researcher and participants that will result in providing accurate and honest responses.

3.3.1.2. Disadvantages of qualitative interviews

Qualitative interviews also have disadvantages although the advantages seem to outweigh them. Below are some of the notable disadvantages of qualitative interviews:

- They could be very expensive in terms of time and money;
- They may require an energetic researcher for obtaining quality in-depth information;
- Researchers need to be skilled and have confidence in handling face to face interviews;
- It requires a noise free environment to avoid disruption.

In this study, face to face semi-structured interviews were used to collect data from ministerial librarians working under the establishment of the directorate of Namibian Libraries and Archives Service (NLAS).



3.4. Population and Sampling

Population is defined as “a group of or set of elements where the research sample will be selected, whereas sampling is the process of selecting certain members from a group or population to represent the entire population / group” (Babbie 2010:199). The population for this study involved all librarians working in government ministries in Namibia. The government has 25 ministries, with more than one library. Since libraries are under the jurisdiction of the ministries are special or scientific, each library is administered by one librarian with fewer supporting staff. All ministerial libraries under the establishment of the NLAS are being headed by the chief ministerial librarian from NLAS, whose duties are to oversee and ensure that there is an effective and efficient operation and management in the libraries.

The study targeted ministerial librarians under the establishment of NLAS. The sample size was 25 librarians and 1 chief ministerial librarian (NLAS). Twenty five librarians represented 25 government ministries and agencies falling under NLAS.

According to Neuman (2000:196) qualitative researchers focus less on a sample's representativeness or on detailed techniques for drawing a probability sample. Qualitative research focuses on how the sample or small collection of cases, units, or activities illuminates social life. The primary purpose of sampling is to collect specific cases, events, or actions that can clarify and deepen understanding.

Table 2. Below illustrates the list of ministerial and agency libraries under the establishment of the Namibia Library and Archives Service (NLAS).

Table 2: Libraries under (NLAS) Directorate

1. Ministry of Agriculture, Water & Forestry	13. Ministry of Health and Social Services (MHSS) Documentation Centre.
2. Ministry of Education Resource Centre	14. Ministry of Works and Transport Library
3. National Botanical Research Institute (NBRI) (Ministry of Agriculture, Water & Forestry)	15. National Meteorological Library (Ministry of Works and Transport)
4. Ministry of Fisheries & Marine Resources Library	16. National Earth Science & Energy Information Centre (Ministry of Mines & Energy)
5. Kamutjonga Inland Institute Library (Under Ministry of Fisheries)	17. National Museum Library (Ministry of Education)
6. Environment and Tourism Resource Centre	19. National Planning Commission Information Centre (Government Agency)
7. Habitant Research & Development Centre Library (Ministry of Local Government and Housing)	20. Ministry of Trade and Industry Information Centre
8. Katutura Intermediate Hospital Library (Ministry of Health and Social Service)	21. Supreme Court Library: National Legal library (Ministry of Justice)
9. Israel Patrick Iyambo Police College Library (Ministry of Safety and Security)	22. High Court Library (Ministry of Justice)

10. Library for the Office of the Auditor General (Government Agency)	23. Ministry of Gender, Equity and Child Welfare Resource Centre
11. Oshikoto Ministry of Education Regional Office Resources Centre	24.. College for the Arts Library (Ministry of Youth)
12. Ministry of Defence Library	25. Khomas Regional Council Library (Ministry of Education)

Table 3. Illustrates the list of the ministries and agencies with librarians that participated in this research study:

Table 3: Ministries and agencies libraries that took part in the study

1. Ministry of Education Resource Centre	7. Ministry of Defence
2. National Planning Commission (Agency)	8. Ministry of work and transport
3. Ministry of Agriculture, water and rural development	9. Ministry of Mine and Energy
4. Ministry of Trade and Industries	10. Ministry of Youth (College of Art)
5. Ministry of Environment and Tourism	11. NLAS
6. Supreme Court Library: National Legal library (Ministry of Justice)	12. National Museum of Namibia (Ministry of Education)

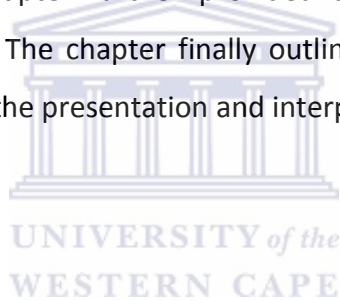
Twelve (12) of the twenty five (25) ministerial and agencies librarians under the NLAS, participated in the study as shown in Table 3. Three (3) of the ministerial libraries under the NLAS and which were not part of the present study, are located in different geographical areas where the researcher could not reach. For the other ten (10) libraries that were not part of the study, the researcher tried numerous times to get hold of librarians to set appointments but they were all out of reach until the set period to collect data was over.

3.5. Procedures

The researcher obtained approval from the NLAS directorate after official request of permission for the research study to be undertaken in the directorate, which then provided the researcher with the list of all libraries with their librarians, contact details and directions. Confidentiality and the ethics issues were explained in the letter to the directorate, therefore participants' names were not identified in the voice recorder for the interviews.

3.6. Conclusion

This chapter has outlined the details of the design and research methodology employed in the study in the process of data collection. It pointed out that the research was informed by a qualitative approach and the chapter further provided a brief summary of the research methods used in data collection. The chapter finally outlined the procedure followed in the study. The next chapter provides the presentation and interpretation of the gathered data.



CHAPTER 4

PRESENTATION AND INTERPRETATION OF DATA

4.1. Introduction

Data analysis is the process of systematically searching and arranging the interview transcripts, field notes and other materials that the researcher accumulates to increase his/her own understanding that enable him/her to present what he/she has discovered. Analysis involves working with data, organising them, breaking them into manageable units, synthesizing them, searching for patterns, discovering what is important and what is to be learned, and deciding what to present to others (Bogden & Biklen, 1992:153).

Qualitative data analysis begins with transcribing the data collected into manageable forms. In this respect, the researcher began transcribing all the recorded data from the digital tape recorder. The data from the interviews were transcribed to enable proper analysis involving identifying the major recurring themes, and relating the themes to the literature review as discussed in chapter 2 of the project that permitted the construction of the original findings. After transcription, this was followed by data coding according to the identified themes, which was guided by the research questions of the study. This was done by searching for common and recurring themes using a thematic analysis which is a qualitative analytic method for: "identifying, analysing and reporting patterns (themes) within data. It minimally organises and describes your dataset in (rich) detail. However, frequently it goes further than this, and interprets various aspects of the research topic" (Braun and Clarke 2006:79).

The study was guided by the following research questions, around which the analysis and presentation also revolved:

The study intended to address the following questions:

- What are the viewpoints of Namibian ministerial librarians towards the concept of knowledge management as part of their profession?

- How are librarians practicing knowledge management using the seven stages of the knowledge management framework as developed by Bukowitz and Williams (2000) (Get, Use, Learn, Contribute, Assess, Build & Sustain, and Divest)?
- What are the skills required by the librarians to participate effectively in KM activities?
- What are the challenges facing government librarians attempting to effectively manage knowledge in their organisations?
- What are the possible solutions to the challenges to bring about effective knowledge management to the ministerial librarians?

4.2. Viewpoints of Namibian ministerial librarians towards the concept of knowledge management as part of their professional work

Ministerial librarians have different understandings of the concept of knowledge management. Some common identified views of knowledge management are as follows:

Knowledge is equal to information, when we are managing information; we are managing knowledge, so KM is a new concept for information management (IM) (participant 2).

KM is the management of knowledge in an organisation (participant 12).

Knowledge management to me is the selective dissemination of information, basically involves the following: collection development organisation and distribution of information (participant 6).

Making the right sources of knowledge available to the right people at the right time (participant 7).

A process of dissemination and utilization of knowledge (participant 4).

Knowledge management, when we talk about knowledge management what comes to my mind first is how I manage & control material that I have in my library. e.g. books and electronic materials. Those are the main sources of information in the library (participant 10).

Viewpoints given by ministerial librarians on knowledge management make sense of what knowledge management is when you compare them to the definition that the researcher had adopted for this study by some of the leading authors of KM such as by Davenport and Prusak (1998:) “ knowledge management is managing the corporation’s specified process for acquiring, organising, sustaining, applying, sharing and renewing both tacit and explicit knowledge by employees to enhance the organisational performance and create value” and by Duhon (1998:9) “a discipline that promotes an integrated approach to identifying, capturing, evaluating, retrieving and sharing all of an enterprise’s information assets”. Those definitions give the same meaning as the understanding of KM by the study participants. In this study, some participants understanding of KM does not match the definitions provided by authors in this study. One of those views is:

KM is the expertise that people have for problem solving at an individual level (participant 11).

A holistic analysis of the understanding of ministerial librarians toward KM indicates that the majority of librarians knows and understands what KM is as part of their profession. The next section indicates how ministerial librarians practice KM at their respective ministries since they understand what is entailed in KM.

4.3. Knowledge management practices using the Bukowitz and Williams (2000) model

4.3.1. Stage one: **GET**: the first stage consists of seeking information needed in order to make decisions, solve problems, or innovate. Bukowitz and Williams (2000) affirmed that information professionals have traditionally fulfilled this role insisting that they are needed now more than ever in order to match information seekers with the best possible content by knowing the whereabouts of knowledge resources and how to access them.

The results of the study have provided the following answers on how ministerial librarians use the GET stage to acquire and gather information to meet the needs of their users to help them make decisions, solve their information problems and innovate.

Ministerial librarians had the following to say:

We acquire external resources through purchasing of resources that meet the needs of our users. We also receive donations from other companies to supplement our collection. For Internal resources, we go from office to office to get publications that are produce in the ministry by ministry of mines and energy employees such as reports, seminar publications, theses, and project management reports relevant to the strategic mission of the ministry. We are guided by collection development policy and user's needs survey (Participant 2).

We.....I acquire them through buying donation, and exchange with other libraries within and outside the country'' we acquire and collect depending on the demands of our clients and focusing on the field of the library (participant 4).

We purchase our external materials from book stores, if the interest arises; internal material is usually sent to the library collection, usually publications by the hosting ministry. Usually we look at the collection development of the library, the need of the users and the availability of funds (participant 6).

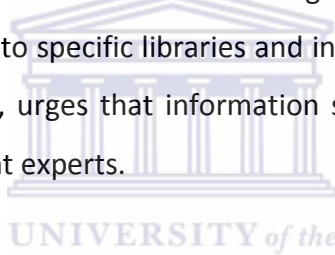
Our library acquires and collects external knowledge resources through sharing information sources with other libraries, for example ministry library or national libraries of Namibia. When one of our clients is looking for information that does not available in our library we refer the client to a specific library that meets the client's information need. We also do interlending services for our clients. For internal knowledge resources our library order books and subscribes to four sparser to keep our client aware of what happening in current situation; the..... I consider the budget as well as the currency of information sources (participant 10).

The quotations provided above are some of the participants' responses. The most commonly identified themes with regard to the process of acquiring and getting external and internal information to help users solve their information problems, are that librarians are guided by the library collection development policy, and specific users' needs. They collect information / knowledge through the purchasing of external resources and donations that are relevant to the needs of the users as well as from other libraries through resource sharing practice of referral of users to a specific library that meets the needs of users. Librarians collect or acquire internal resources going from office to office to search for projects, thesis, and conferences reports, and searching the internet. This study finding is in corroboration with the Bukowitz and William (2000) model that states that information professionals identify the knowledge contents of value that match the needs of the information seekers that needs to be acquired and then they manage this knowledge effectively and efficiently. The study by Lee (2007), supported the Bukowitz and William (2000) model that argues that information on the web can be useful if librarians can employ advanced artificial intelligence tools to surf the internet and select, find, arrange, classify, and automatically deliver the needed information to each user based on the user's special interests and needs.

The study affirmed that some ministerial librarians look for where knowledge is residing to bring it together in the library where it can be accessed by all users. This has been proved by the fact that librarians go from office to office in the ministry to get information produced in

the ministry by ministry's employees to be catalogued in the library system, for example *"For Internal resources, we go office to office to get publications that are produced in the ministry by ministry of mines and energy employees such as reports, seminar publications, theses, and project management reports relevant to the strategic mission of the ministry. We are guided by collection development policy and user's needs survey"* (Participant 2).

The study has proved that some librarians have moved away from traditional library practice to practicing knowledge management as it was urged by Mchombu (2010). One of the ways is by harvesting organisation knowledge. The findings also support the Bukowitz and William (2000) model that pointed out that "GETTING" of contents encompasses not only traditional explicit content (e.g. a physical or electronic document) but also tacit knowledge. The tacit knowledge in this stage is internal knowledge harvested within the organization, and subject experts which in this stage, librarians refer users to specific libraries and individuals with information meeting their needs. The model therefore, urges that information seekers need to be connected not only to contents but also to content experts.



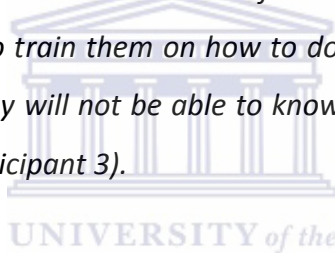
Another occurring theme was budget. Librarians consider the budget allocated to them when purchasing library materials to meet the needs of users (*participants 6 & 10 above*). This finding replicates a study by Emojorho (2011) who reported that effective collection management involves budgeting and allocation of necessary resources.

4.3.2. Stage two: USE: This stage deals with the means of combining information in new and appealing ways in order to foster organisational innovation by focusing on the individual and then on the group to encourage the use of knowledge. The researcher used the USE stage to find out how librarians ensured that users have access to the knowledge contents collected in stage one.

Participants had the following to say with regard to how they ensured that knowledge contents in the library are accessible by ministry employees and ordinary users to add value to their work:

We market the library resources by scanning every first page of new book and circulate them to all users; we also email content pages of the journals to users; we also publish in the ministry E-Bulletin that contains everything relevant to the ministry and is published every Friday (participant 2).

Through displaying them in the library – putting notices on the board – sending emails to all the employees in the organisation. .. We try to ensure that we do a face to face contact i.e. I mean to meet them face to face and inform them about the new arrivals. I have to train them on how to do it... That is my responsibility to do that because if not they will not be able to know about it. The training is necessary and very relevant (participant 3).



By giving them user education and lessons whenever we have subscribed to a new database and upload clear instructions on how to use the database on the intranet or by email (participant 7).

The materials in the library are made available to the primary users. These are the NPC (National Planning Commission) employees, there are ways of marketing these materials currently the most effective way is by internet, when we receive new materials, different versions are informed by email, we scan the content of the book, magazine, or journal and also we scan the most important topics or article to each specific subject area and email it to the employees and this is according to their subject specification. Only in the case of an overall document that might concern the organisation at large such as articles or information emailed to all employees. And also by word of mouth when employees come into the library we inform them about

the new materials that they might be interested in. and finally there is a display shelf for new journals and magazines next to the copy machine that way users can have a chance to see the material easily when making copies. We let employees know how to search the knowledge asserts or database of the library through training on basic search skills; this has not really been effective lately due to few computers but its something we hope will used more effectively in the future (Participant 11).

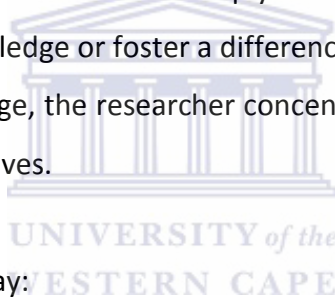
In this stage, the researcher focused on the means to market the available knowledge in the library to the targeted group, to create awareness and the usability of the resources so that they can add value that can lead to innovation. The results indicate that some participants market their acquired information / knowledge to the users' group through scanning of content pages of books and journals and emailing them to their users. It shows also that the same participants market their acquired information through publishing current awareness of new arrivals in the ministry bulletin, shelve new books, journals, conference and project reports, and theses on display shelves and place a list of new arrivals on the notice board. Ministerial libraries with active website publish on the ministry website, information on library training, and new acquisitions.

The study has found that the majority of participants conduct training, or user education as it is referred to by some of the participants, to educate users on how to effectively use knowledge. Information literacy is a library concept for library training and user education programmes which, according to Rooi and Synman (2006:266), teaches users how to access and gather data, how to navigate and integrate sources, and how to evaluate and assess information found or knowledge shared. It also teaches users to properly use information technology facilities, to make decisions based on validated information, and to be able to define their information needs as well as how to satisfy those needs. The study supports the findings of Syed-Ikhsan and Rowland (2004a:101)'s study who asserted that knowledge gained by employees through training will enable them to translate their knowledge into the organisation's routine,

competencies, job descriptions and business processes, plans, strategies and culture. Therefore employees need training to improve their knowledge and capabilities.

Bukowitz and Williams' (2000) model states that in the USE stage, techniques to promote out-of-the box thinking or creativity, and the use of knowledge are made, and these connect to the study's finding in conducting information literacy training, and others means to promote the use of knowledge that enhance thinking out-of-the box for innovation.

4.3.3. **Stage three: LEARN:** This refers to the formal process of learning from experience as a means of acquiring a competitive advantage when learning the knowledge content. Learning is an essential process that follows after the acquisition and application of content; it is important to avoid circumstances whereby the content is simply warehoused somewhere and does not serve to increase or improve knowledge or foster a difference in the way things are done within the organisation. In the LEARN stage, the researcher concentrates on how ministerial librarians share knowledge amongst themselves.



Participants had the following to say:

We attend conferences for example NLAS send us to IFLA conference for networking and knowledge sharing, then report back to other librarians for knowledge transfer. We share knowledge through debating on issues pertaining to library matters via the NLAS facebook with other librarians. The same applies within the ministry, whoever attends a seminar need to present the outcome of the seminar to the department (participant 2).

You know here in NLAS, only librarians with a library degree attend conferences and workshops, those without degree are not invited to any workshop at all. The librarians attend conferences and workshop and short courses but they do not share or give presentations to share with us (participant 12).

Through discussion forums, meetings, conferences and workshops. The ministry has to hire an individual or an organisation to come and facilitate that person can be outside the country or within the country. (participant 4).

When I have gone to workshops I have learned new ideas and knowledge. When I am back in the office, I normally train and show my colleagues (participant 7).

Tacit and explicit knowledge require different ways of transferring and sharing knowledge. In ministerial libraries we share knowledge through conference, meetings, end of year meetings and New Year message, and through assignees- this is where by employees are sent to other department to learn before they take up the post. I was sent to ministry of mines and energy to undergo induction training in librarianship before coming to work here (participant 11).

The study did not include the impact of users on learning from knowledge contents held in the library to acquire competitive advantages; rather, it focused on librarians gaining knowledge and skills from conferences, workshops, training, and presentations provided for knowledge sharing with other librarians in NLAS, locally, regionally and internationally as a way of transferring tacit knowledge. The study finds that some participants gain knowledge and skills through attending conferences, workshops, training, discussion forums for knowledge sharing, and debates usually created on NLAS facebook. This finding supports a study by Smith et al. (2008:38) which also found that the directorate of NLAS provides full in-service training that consists of short courses facilitated by external training service providers or in-house by experienced staff.

Some participants share knowledge learned from attending conferences, workshops, and training with their colleagues in office who were not privileged to attend; and some participants have indicated that it is only the library staff with degrees that get invited to conferences,

workshop, trainings and so forth; and that those librarians without a librarian's title or qualification do not attend, and they also do not present to their colleagues when they come back. This means that library staff who do not attend are missing out on tacit knowledge in the form of skills and competencies, which according to Al-Hawamdeh (2002), can only be transferred from one person to another through training and interaction. Al-Hawamdeh also affirmed that the know-how knowledge which is tacit knowledge can be documented, and Komanyane's study (2010:54) suggests that knowledge in the form of reports from trainings, workshops, and conferences be stored in the library or databases (knowledge management system) for staff especially those who do not attend, and are even important for those who attend to refer to at any time and the knowledge will form part of the organisational base.

4.3.4. **Stage four: CONTRIBUTE:** Deals with getting employees to share their knowledge via the communal knowledge base (repository, intranet for knowledge transferring). With the CONTRIBUTE stage, the researcher concentrated on how the different ministry departments contribute their knowledge to the library to be processed and be made accessible to the entire organisation and library users. (Knowledge conveyed via project reports; workshops, seminars, conferences; and short courses reports, policy and regulation, and documents produced in different departments in the ministry).

Below is what some of the participants had to say:

The ministry has a policy whereby all staff members deposit all relevant reports to the share point for knowledge sharing (participant 2).

Most of the employees are not sharing knowledge with others because most of the time you hear that the person who was expert in something resigned and there is no one who can do that specific job or that specific document was with the person and is no where to be found after he / she resigned (participant 5).

We have a portal called AMIS (agricultural management information system) where all the directorates upload their reports and the staff has access to that portal (participant 7).

They are just giving a short report in the staff meeting, and submit it to the rector. We do not keep hardcopy for reports in the library, they keep it in the office (participant 8).

In the CONTRIBUTE stage, with regard to ministry staff contributing their knowledge to the library which is part of the ministry repository, the findings indicate that some ministries have implemented the knowledge sharing portal, SharePoint, with enforced policy for all employees to deposit all relevant documents to the portal for knowledge sharing. Some ministry departments do not contribute by depositing their documents to the library, and they have no SharePoint in place for knowledge sharing documents, which indicates that those ministries do not have a knowledge sharing culture. Syed-Ikhsan and Rowland (2004a:101) have pointed out that an organisation should have a knowledge sharing culture for people to make it a natural habit to share by depositing documents in the organisation repository. The findings are that the majority of the participating ministries have adopted ICT to facilitate knowledge sharing. This study finding is in support of Komanyane's (2010:41) and Chong, Sallem, Syed Ahmad, and Sharifuddin's (2011:509) finding that indicated that knowledge sharing technologies and communication technologies are highly significant KM enablers in the organisation.

Bukowitz and Williams (2000) model urged that the point of the exercise is not to post everything on the company intranet but to cull experiences from which others in the organization may also benefit. The model implies that organizational content to be shared must be repackaged in a generic format in order to be of use to a wide audience. Librarians as knowledge professionals have the responsibility of gathering, repackaging, and promoting knowledge nuggets. Contents that employees must contribute to include the sharing of best practices and lessons learned so that others do not repeat the same mistakes.

4.3.5. **Stage five: ASSESS:** Refers to the evaluation of intellectual capital and requires the organisation to define its mission and critical knowledge as well as the mapping of current intellectual capital against future knowledge needs. The researcher investigated how ministerial librarians evaluate the quality and relevance of knowledge held in the library.

Below are some of the participants' views on how they conduct the assessment and evaluation of the quality of knowledge resources in the library:

Okay, the first thing is through library assessment questionnaires designed for users to assess the services and resources, which is conducted after every years (participant 2).

We have never done any collection evaluation and assessment here, as you can see, those old books are not even used (participant 12).

By doing research and setting up questionnaires, use suggestion box for users to put their complaints and recommendations in the library about the library resources (participant 3).

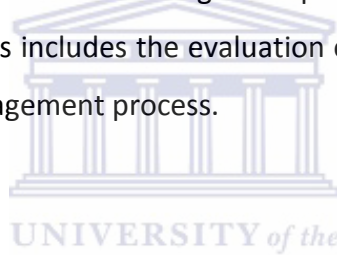
By setting up a user need assessment and we evaluate according to what the users are looking for. The user needs assessment is done once a year at the beginning of the year before new financial year (participant 5).

I have never done it before and I am willing to do it next time (participant 8).

Those were some of the participants' responses. The findings reveal that the majority of participating ministerial librarians map out of current intellectual capital against future knowledge needs by conducting library needs assessment survey for users to assess the quality and relevance of resources. Some participants indicated that they have suggestion boxes and some reported that they have never conducted any assessment or evaluation of collections for quality assurance. Based on data provided, this finding supports a study by Nitecki (1996:183)

whose finding affirmed that the assessment of how well a library succeeds depends on the user as a judge of quality, and this has been advocated for several reasons, among which are for example to gain insight into quality, for political benefit, to establish demand, to establish how well needs are met by the service, and again to assess topical relevance and usefulness. Findings from a study by Thompson, Kyrillidou, and Cook (2006:16) also match with this study's findings that reveal that librarians conduct market surveys intended to help them understand user's perceptions toward the resources, and this helps improve service quality, and better meet patrons' information needs. It is therefore crucial for librarians to continuously assess library intellectual capital against the needs of the users.

Bukowitz and Williams' (2000) model states that assessment must focus on how easily and flexibly the organization can convert its knowledge into products and services of value to the customer's information needs. This includes the evaluation of the knowledge base assets to be incorporated into the overall management process.



4.3.6. **Stage six: BUILD & SUSTAIN:** Ensures that there will be intellectual capital in the future that will keep the organisation viable and competitive. In this stage, the researcher investigated how librarians ensure that organisational knowledge assets can sustain the knowledge for future use, and how the directorate of library and information (NLAS) service builds and sustains ministerial librarians.

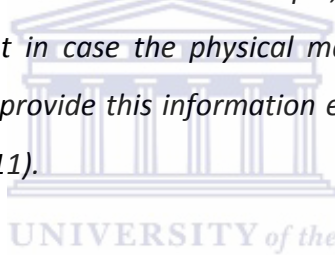
On the question of how librarians ensure that organisational knowledge assets can sustain the knowledge for future use, below are a few views from participants:

We have been using a library management system (LMS) called ABCD, open software that is sitting on the server whereby information/ data captured can be preserved for future use. The LMS that got circulation module, cataloguing module etc. Since open software lacks support and technology always change in such a way that without

support and maintenance on it, it may not preserve our knowledge for a long time (participant 2).

You need a back up, and you must always make sure that it is always in place in order to avoid computer crashing, protection of computer by having antivirus (participant 4).

It's up-to-date, effective, and upgraded time to time. Technology is changing all the time; however, it is very slow with government organisations to keep upgrading and changing all the time. So all we do ensure that information is kept very well and accessible at an economical time with the old service we have, and only a slight change is done by one's innovation. For example, I keep electronic versions of most important resources just in case the physical materials are few or damage or on demand that way I can provide this information electronically to other employees in the region. (participant 11).



The findings reveal that participants capture information / knowledge to be preserved for future use. Knowledge capture, organisation, and retrieval is done by using open software called CDS ISIS open software which is used by the majority of librarians, and few librarians are using ABCD library automation software which is an integrated package for library automation (both traditional and also digital/virtual libraries), and is web based with the online public access catalogue. Participants indicated that CDS ISIS is old unreliable software, but it allows migration of data from one system to another. NLAS is currently working on finding the best integrated library management system for all libraries in ministries but it needs the support of libraries' parent bodies since they are the ones responsible for funding for their libraries resources and facilities. Yet, they do not seem keen to support, as stated by one of the participants:

The other problem is, since libraries parent bodies are responsible for funding for this type of resource, they are not so keen to support and with the ministry of defence, they are

willing to pay. That's why we are starting with them to set an example to other ministries (participant 1).

The study findings support the findings by Lee (2007) which recommended getting the best information/ knowledge management system, that recent development on knowledge management system have come up with, and that have other new methods of capturing digital information in large electronic information databases and on the internet such as data mining, text mining, content management, and search engine. Yet those applications cannot be done with CDS ISIS and ABCD software. This finding proves that KM organisation and storage in Namibian libraries is weak, and this finding is similar to the finding reported in a study by Nengomasha (2003:64) that discovered poor retrieval of information in Namibian government.

In the GET stage, the study discusses how librarians refer users to specific libraries and individuals with information meeting user's needs. This can be effectively done when there is a proper system in place at the libraries, which Cong and Pandya (2003:27) emphasized on that, with good information / knowledge management system in place, employees should gain knowledge, skills and experiences by contacting subject-matter experts through skills databases or searchable repositories of skills profiles. The present study found that the CDS ISIS software, which is in most ministerial libraries, is not a web tool; therefore, librarians could not integrate or bring together information harvested internally / externally from sources and different disciplines, and they could not organize it in a systematic manner either.

The study concentrated on knowledge / library management system, and librarians as human resources and intellectual capital that need to be built and sustained in order to keep the organisation viable and competitive. On building and sustaining human resources, the study findings revealed that there is a high staff turn-over in NLAS with well qualified librarians leaving the ministries for the greener pastures of the private sector. Lower salaries and lack of recognition of the librarianship profession from the top management was the main motives for the high turnover. NLAS is on their knees praying for a salary increment from the office of the

Prime Minister through negotiation, and recognition of librarians values in the government ministries so that they can attract and keep experienced and skilled librarians in their system. Participant 1 pointed out the following on how NLAS ensure that they keep their experienced and skilled librarians in the system:

Mhuu, that's actually the main challenge we are facing now, as the librarians are the least paid job in government. As a result we keep losing well experienced and skilled librarians to the private sector because of the salary problem that unfortunately as a directorate there is nothing we can do about it. We are currently negotiating with the office of the Prime Minister for salary adjustment to at least upgrade the salary so that we can be able to attract skilled and experienced people in the system. This involved us going to the OPM to explain to them how we do our job and what is actually entailed in it, since all they think so far is that librarian's job involves only the stamping of book (participant 1).

In the BUILD and SUSTAIN stage, Bukowitz and William (2000) model urge that the inability to locate and apply knowledge to meet an existing need results in a lost opportunity, and coming short on the right knowledge delivers a much more serious blow – loss of competitiveness and ultimately of organizational viability as well.

4.3.7. Stage seven: DIVEST: In this final stage, the organisation needs to examine its intellectual capital in terms of the resources required to maintain it. This might include terminating training programs, redeploying staff, replacing or upgrading technologies, ending partnerships or contracts as well as the weeding of the library collection. This needs to be done after a strategic decision-making process. Therefore, the organization should not hold on to assets – physical or intellectual - if they are no longer creating value.

With divesting in form of terminating of resources, the study findings revealed that ministerial librarians are not the one directly involved in termination of training programs, but NLAS being responsible for capacity building of all ministerial librarians, scrutinize programs of any training or workshop available, and the credibility and reputation of the facilitators before deciding to

invite facilitators and, before sending librarians to any training or workshop. With regard to the redeployment of staff, NLAS consider the staff's experiences and qualifications, and even more their commitment, in order to place them in any job designation. With regards to replacing and upgrading of technologies, the study findings revealed that ministerial libraries are using outdated software or library management system for organizing, and retrieval of information. The Bukowitz and William (2000) model state that the organization should not hold on to assets if these assets are no longer creating value.

Looking at what participants consider when terminating the subscriptions of library resources contracts, and weeding of library collection, some participants have the following to say:

First thing we do when terminating subscription contract, we consider our users, like subscription renewal, journal. We go through the journal list and ask departments/users to go through the list to decide which journal is still relevant that we can renew. Then after that we evaluate their comments to decide based on their comments. We also look at the budget to see if we have enough money for all subscription and new materials, then if the money is not enough then we can tell them that we are terminating some subscription. The same applies to weeding. We compile lists of items that we want to weed out, and then give the list to the users to comments on it (participant 2).

We don't do it. Those are all old materials that need to be weeded out, but if we weed them out, what will be left of the library since they are all we have (participant 12).

I have to consider which resources are still useful and which ones are not useful. I have to also identify the new resources that can benefit my library and my users (participant 9).

We do it in the knowledge that there are procedures to be followed as well as considerations on the value of materials to be weeded (participant 11).

The study has found that some participants consider the opinions and comments of library users on the value and relevance of knowledge to be weeded. Some participants indicated that they consider the budget allocated for purchasing and renewing subscriptions compare prices of different suppliers, and the reputations of the suppliers. The majority of participants have never done weeding, or they have never terminated any subscription, and a few participants have no ideas. According to the Texas State Library and Archives Commission (2008:13) weeding enhance libraries' reputations for reliability and currency and builds public trust, and it allows librarians to keep up with collection needs by having greater knowledge of the collection.

Bukowitz and William's (2000) model point out that if knowledge is no longer relevant to the strategic mission of the organization, it should be transferred outside the organization where it may be valuable. The study supports the model which stated that the organization needs to examine its intellectual capital in terms of resources required for maintaining it and whether these resources would be better spent elsewhere. This involves understanding the why, when, where, and how of formally divesting parts of the knowledge base. The model urges that an opportunity cost analysis of retaining knowledge should be incorporated into standard management practice. It is necessary for sustaining competitive advantages and industrial viability.

4.4. Skills required by librarians to participate effectively in knowledge management activities

The present study findings indicate that most participants require advanced IT and information literacy skills; followed by the skills to analyse user's needs; expert knowledge of content of information resources; skill to retrieve, create, organise, and capture knowledge; and communication skills. However, some participants do not know what skills are required for them to effectively practice knowledge management. These study findings replicate findings reported in earlier studies by Koina (2002), Marshall. et al. (2003), and Ajiferuke (2003:254) who emphasised that librarians should have expert knowledge of the content of the

information resources; ability to provide excellent library instruction which is information literacy; skill to design information services and products to meet users' needs; skills to use appropriate information technology to acquire, organise and disseminate information; and communication skills. The study findings also corroborates with Malope's findings (2005:15) regards insufficient training on the use of information technologies that finds lack of human capacity to effectively utilise the benefits of infrastructure for the transmission of knowledge to diverse users.

4.5. Challenges facing ministerial librarians attempting to effectively manage knowledge in their organisations

Knowledge management is not fully practiced in libraries due to some hindrances, some of which have discussed by participants. Here are some of their views:

Ya, I can say in the Namibian case, the first thing is lack of training for some librarians. Not all librarians received proper training for the job. The second thing is the skills of IT as I said earlier. Another challenge in the Namibian case is lack of support from other professional in terms of communication and resources sharing. Then another thing is 'am talking about the Namibian case, is the structuring hierarchy of librarians positions compare to other professions in the government that cause them not to have sufficient room to practice KM (participant 2).

Training for all library staff, all libraries to have budget, recognition from the top management (participant 12).

One of the challenges is financial constraint and another is tools to do a good knowledge management and finally poor management (participant 4).

Lack of support from the bodies in management, lack of financial support and the negative attitudes towards libraries from users e.g. libraries are boring places to be (participant 6).

Lack of facilities, I think the government should improve the system used in libraries especially the library information management system. Most ministerial librarians still don't have this system, therefore libraries find it difficult to share information with each other's because no management system is in place (participant 8).

Lack of communication, lack of funds for conferences, training and mostly with governments lack of electronic skills or rather no electronic / web based practices, in other words information communication technology in web based subject (participant 11).

The study findings show that most participants indicate lack of training, financial constraints, not all libraries are allocated with budgets in their respective ministries, poor management support, and poor knowledge sharing among librarians, and poor KMS / LMS for resources sharing and for users to access the library. Some of the challenges identified by participants matched with challenges pointed out by Jain (2009). Among these mention can be made of financial constraints, technological infrastructure for librarians and users to effectively use the library management system, internet, and electronic resources databases. Another study with similar findings is the study by Ou and Davison (2007) that also identified lack of training, limited resources, bureaucratic system, communication problems, poor knowledge sharing among colleagues, poor knowledge contribution to KMS by individuals, and lack of standardised practice in knowledge storage and transfer.

4.6. Possible solutions to the challenges to bring about effective knowledge management to the ministerial librarians.

Different organisations experience different challenges in executing knowledge management in the organization. For this particular study, some of the responses of participants were as follows:

I can say that regular training for librarians for them to keep abreast with the trend; the next is the upgrade of the librarian's salary to be graded with other professionals in government, and librarians who have worked for many years after formal education need refresher courses (participant 2).

Proper training, good communication skills, budget, good understanding of library management and function by ministry's management (participant 12).

They need budget and proper planning in order for librarians to achieve their goals (participant 4).



The ministry should employ enough staff and they should give training to their staff. They should always update library with materials and resources (participant 10).

Exit interviews whereby an employee leaving the organisation is asked questions that can be used for problem solving in organisation. Apprenticeship or mentorship whereby older members of staff pass on knowledge to the junior members (participant 11).

With the identified challenges facing ministerial librarians, participants have also provided some corrective actions that may likely address the challenges. According to this study's findings, participants suggested that NLAS should provide more training on IT, and this particular finding supports the study by Ou and Davison (2007) that suggested the uploading of

training materials online for knowledge sharing. Some participants pointed out that NLAS should advocate the value of librarians to the top decision makers which will result in the upgrading of salaries to be at a similar level to other professions in government. Participants believed that if their work could be treated like other professions, the government would automatically allocate budgets to all ministerial libraries. Participants also indicated that purchasing of new integrated library / knowledge management systems, which is web based, will enhance the process of knowledge organisation, storage, retrieval and dissemination, and resources sharing. Some participants indicated the problem of staffing to be addressed for effective rendering of library services to the users. As the solution to loss of knowledge due to high staff turnover, some participants suggested that the directorate conducts exit interviews for staff resigning to share their tacit knowledge with the persons who will take over; they also suggested the provision of apprenticeship for junior and novice staff.

4.7. Conclusion

The chapter presents and interprets the findings of the study by addressing the research questions and tackling the issues raised in the study problem statement. The analysis involved working with data, organising them, arranging them into manageable units, synthesizing them, searching for patterns, discovering what was important, relevant and matched with not only the study problem statement, but also the framework of the study.

The study provides practical descriptions of what was actually happening in ministerial libraries with regard to the practicing of knowledge management to contribute to the strategic mission of their respective ministries and to break the perceptions provided in Abell and Oxbrow (2001:149) that employers perceive librarians as possessing valuable skills, but as back office workers who provide services and resources to the organisation under the direction of real managers and are thus viewed as a support to the prime activity, not a central concern to the organisation. The perception is brought about by the fact that 80-95% of the information used in organisation is generated internally, and in which librarians have no involvement.

The model used in the present study is more comprehensive since it provides how both tacit and explicit knowledge are managed within the libraries setting. The next chapter provides the conclusion and recommendations to the study.



CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

5.1. Introduction

This chapter provides the conclusion and recommendations to the study. The chapter also provides suggestions for future research.

5.2. Conclusion

The study investigated the practices of KM in ministerial libraries in Namibia within the theoretical framework of Bukowitz and Williams (2000) who posited seven stages (GET, USE, LEARN, CONTRIBUTE, ASSESS, BUILD & SUSTAIN, AND DIVEST), as well as identified challenges and solutions to KM. The conclusion summarises major findings of the study as follows:

- Holistically, the study provides evidence of KM practices by ministerial librarians to a moderate extent, though the concept of KM is well understood as per finding. To a large extent, the findings indicate the practices of IM more than KM, with few librarians practising KM. Most participants' KM practices, as investigated by seven stages, illustrated the traditional library practices or IM as discussed by Mchombu (2010). The study finds that the reason for some ministerial librarians not progressing in KM practices is owing to a lack of effective KMS/IMS in place, which if implemented will enable ministries' employees and general members of the public to access the library online, as well as facilitate resource sharing with other ministerial libraries.
- As a result, the study's findings concluded that some participating librarians are knowledge managers and some are not. They understand the concept of knowledge management, and they are trying to work harder to change the mind set of employers regarding what they are contributing to the strategic mission of the organisation in adding value to employees performances by effectively gathering information needed; training and educating employees to access and use knowledge; and learn by what they

have created when knowledge produced in departments is captured, organised and made accessible via the library management system.

- The study finds that most participants were actively involved in seeking and gathering information needed for problem solving at the ministry, and by ordinary users of the library. Few participants were found to have difficulties with meeting their users' needs due to inadequate funding, or lack of funding for the library.
- The study finds participants' experiences of marketing of the library too traditional and mainly done at the library.
- Most participants indicated that they conducted information literacy training for library users, but the researchers observed that not all the ministerial libraries are equipped with computer facilities for users.
- The study discovers the learning stage to be progressing well with participants sharing and transferring knowledge through workshop and conference networking, but that it is mostly professional librarians who are catered for.
- The contribute stage, is not well understood in ministries, and this is evident from the finding that only a few participants have different departments depositing internal knowledge to the library to benefit everyone.
- The study finds the stage of assessment and evaluation of library resources for quality and relevance effective in most ministerial libraries. However, not all ministerial librarians are exercising it.

- The study finds the practice of building and sustaining of intellectual capital which include KMS/LMS to facilitate the storage and retrieval of the organizational knowledge, and building and sustaining library staff not effectively done.
- The study finds the divesting stage in terms of weeding, and terminating of subscriptions, not practiced by most librarians.

In a nutshell, the Bukowitz and Williams (2000) framework adopted for this study has unearthed different aspects of librarians' involvement in KM. The strength of the application of the framework to the library sector is that it practically sets out the actuality of how librarians do business; and what it is that they do to contribute to the strategic mission of government ministries. Although the study findings showed evidence that librarians were concerned about the lack of support and recognition from the top management, there were some weaknesses in the build and sustain stage.

The findings have revealed that the majority of participants match the organisations' intellectual capital in terms of strategic requirements by continual assessment and evaluation of existing intellectual capital and collecting only information meeting the needs of the organisation. The study provided evidence on how NLAS is trying to convince libraries' parent ministries to purchase integrated web-based knowledge/library management system that will solve problems as identified to replace the CDS ISIS software that are used by most of the libraries to be able to build and be properly sustained by developing a more integrated Online Public Access Catalogue (OPAC) with both internal and external resources in all formats as pointed out by Lee (2007).

The study findings have revealed participants' weaknesses in addressing the divest stage, as only few participants are involved in divesting knowledge to create higher value. The majority claimed that their libraries are new; and some just could not do it. With regard to skills and competence to practice knowledge management, the study findings revealed that participants have shown greater need of training in IT related courses, and communication skills. The

findings have identified some hindrances preventing proper management of knowledge in ministerial libraries, which are lack of training, financial and limited resources, poor support from top management, and poor /outdated KMS /LMS. With regard to the solution, the study concluded that more training is needed to address the challenges identified, NLAS as the directorate of libraries and archive services to advocate the role of information professionals in the organisation.

Based on the perception that stated that 80-95% of the information used in organisations is generated internally, and in which librarians have no involvement, the study finds that most participants collect internal information from different ministry departments to catalogue it to be accessed via the library system, which though out-dated, function well inside the library. Some libraries with ABCD system in place, though very few, their knowledge/information contents is accessible via OPAC. In support of the perception, the study finds that some ministries have a portal or share point where they deposit everything produced internally for the purpose of knowledge sharing and transferring, and this is not managed by librarians. Some participants expressed their concern about insufficient staffing which is also contributing to the ineffective practice of knowledge management.

For KM to be fully successful in ministerial libraries, certain recommendations are put forward for measures to be put in place as discussed in the next section.

5.3. Recommendations

The study suggests the following recommendation based on the literature and on the topic:

5.3.1. Recommendation to government ministries

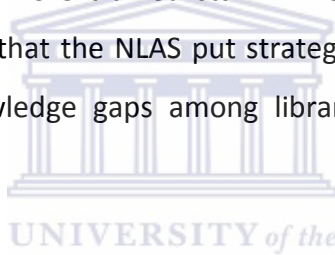
- The findings of the study indicated that most ministries' employees where librarians are included, do not fully practice KM, which is proven by poor depositing of internal knowledge (workshop, conferences, project reports, and training reports) to the library to be accessed by interested users. Therefore, the study recommends that government

ministries' should implement KM strategy as guideline for the contribution to KM by all employees. This strategy will enable all employees to understand and have an interest in KM activities, and as a result they will start sharing and transferring knowledge naturally. The guideline should state clearly the benefits of KM to employees, which include staff empowerment in the form of training and learning; and identification of best practices to promote innovation.

5.3.2. Recommendation to Namibia library and archives services

- The study findings show that even though ministerial librarians fall under the establishment of the NLAS, different libraries' ministries are responsible for furnishing their libraries with equipments and facilities for effective functioning. Subsequently, the results indicate that some libraries' respective ministries do not understand the value or importance of having a library in the ministry. As a result, libraries are the last to be considered in the budget. This left libraries with little or no budget at all in some ministries. Therefore, the NLAS should advocate the role of libraries in government ministries to decision and policy-makers. The NLAS should inform government ministries to invest heavily in libraries by recognizing the value of librarians, and allocating adequate funding to libraries to enable them to get appropriate programs for information literacy as well as to acquire knowledge / information meeting the needs of the ministry. Results suggest that participants are committed and dedicated to making a difference, provided that their efforts are well remunerated and highly motivated to reduce stress and bring about optimum performance.
- The NLAS should assist ministerial libraries to implement an effective integrated knowledge management system to be adapted by all ministerial libraries in the country for knowledge resources sharing to enhance knowledge sharing and dissemination.

- The findings indicate that only librarians by profession attend training, workshops, and conferences organized by the NLAS. Therefore, all library staff with willingness to attend training, workshops, and conferences should be given an opportunity for development and growth. Those library staff without proper qualifications should be encouraged to study further, provided there are funds to cover the studies. The University of Namibia is the only higher education institution in the country with school of library and information science. The finding recommends NLAS to encourage staff without qualifications to enrol for the diploma in library science that is currently offered on a part time basis. Further studies will ease the burden that is currently on single individuals, as the librarians are the only staff able to conduct information literacy training, information searches and, present library cases to management and attend different board meetings. More trained staff will enable the sharing of tasks at the office. The study suggests that the NLAS put strategy in place to conduct a knowledge audit for identifying knowledge gaps among library staff in order to find ways to improve these gaps.
- The findings points out that NLAS sometimes use external facilitators as consultants to conduct training / workshops for librarians. Therefore, the NLAS should develop a knowledge expertise database for government ministerial librarians. The database will help the directorate to use its own people as internal consultants to facilitate training and workshops, instead of hiring external consultants. The benefits of using internal consultants can help librarians gain confidence and more experiences; it will increase librarians' interest to stay in the directorate which will reduce turnover; internal consultants have more knowledge of the company and know about the current situation and challenges to be addressed; it is cheaper; and it is rewarding to let your own staff prove what they are actually capable of, which is sometimes overlooked. In short, there are librarians in ministerial libraries that are good at cataloguing, indexing and classification, information literacy skills, collection development and evaluation, and so

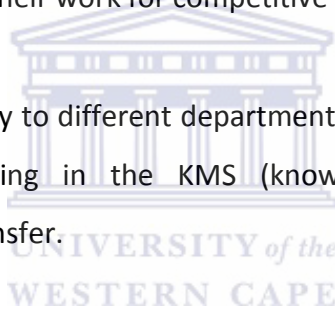


forth, but the directorate needs to have full trust in the intellectual capabilities of its own people.

- NLAS should consider staff exchange programmes as a means of sharing best practice, by identifying suitable government ministerial libraries in Africa to start with to benchmark with for best practice to enhance capacity building.

5.3.3. Recommendation to ministerial librarians

- Ministerial librarians should reach out to their ministry's employees to encourage them to use the library to improve their information literacy skills, in an endeavor to help them become lifelong learners, and this will enable them to be innovative and continuously add value to their work for competitive advantages.
- Librarians should go directly to different departments in the ministry to collect valuable documents worth capturing in the KMS (knowledge management system) for knowledge sharing and transfer.
- Librarians should market the library's activities and new arrivals through the ministry webpage by having the library link on the home page for every visitor to see it as they browse.
- Ministerial librarians should make the library's needs known to the budget allocating team, in order to be provided with an adequate budget to furnish the library with proper facilities and equipment for research purposes. Some of the ministerial libraries, particularly the Supreme Court law library, which is also a national law library, are not equipped with computers for users. Therefore, librarians need to address issues that are most critical to the development and research to be tackled.



- Quality assessment and evaluation of library collections were not found to be successful. Consequently, the study recommends that ministerial librarians appoint a librarian to be responsible for quality assurance to ensure that knowledge being managed is of relevance to the ministry.
- For the library to render effective services to its user community, it must have a good collection development policy in place, which includes weeding criteria and set procedure for termination of subscriptions. The finding recommends that all ministerial libraries should have a written policy in place to guide library staff to effectively perform their job as stated in the policy. All staff should know the content of the policy to avoid focusing more on some specific activities while ignoring the others. At the same time, the study recommends librarians to learn to think the out-of-the box for possible innovation and implementation of changes.

The world is changing rapidly, with new innovation being introduced to meet current and arising global needs. Implementing the Bukowitz and Williams (2000) seven stages model in the library fraternity will enable librarians to improve in the way they conduct business. Libraries are supposed to be the back bone that holds the organization, in ensuring that the organization excel prior to the quality and useful information they receive from the library, to strategically make valuable decisions to achieve objectives. Librarians need to become proactive by availing themselves with constructive ideas in activities pertaining to the building up of the organization. The problem statement of the study is resolved, and the objectives were met. The study's finding is in relation to the literatures and the theoretical framework has been discussed.

5.3.4. Suggestions for further research

This study did not focus on the impact of ministerial libraries in the ministries in order to investigate how the libraries contribute to the success of the ministry by involving different

ministries employees as participants; rather, it focused on the role that ministerial librarians play in managing knowledge. Further studies on the impact of ministerial libraries on the ministerial employees are needed to find out the degree of visibility of KM in ministerial libraries as it is expressed by its stakeholders.



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APPENDIX 1.

FACULTY OF ARTS

Department of Library & Information Science

University of the Western Cape

Private Bag X17

Bellville

7535

22 March 2012

Ministry of Education

The Directorate of Namibia Libraries and Archive Services (NLAS)

Windhoek, Namibia

Letter of permission to conduct a study in the: The Directorate of Namibia Libraries and Archive Services (NLAS).

I, Selma Ilonga, a Master's degree student in Information Studies, Department of Library and Information Science at the University of the Western Cape, am conducting research to investigate the "The role of ministerial librarians in knowledge management. The purpose of the study is to find out how ministerial librarians are practicing knowledge management in their respective ministries. The research forms part of my studies towards a Masters' degree in Information Studies with the research title 'The Role of Namibian Ministerial Librarians in Knowledge Management.' The study is to be conducted under the supervision of Dr G R Davis. This letter serves to kindly request the permission from your esteemed office to conduct research in the Directorate of Namibia Libraries and Archives Service (NLAS).

Semi-structured Interviews with the use of a voice recorder will be employed to collect research data from twenty-one (25) ministerial librarians. The proposed time period of data collection is 26 March -27 April 2012.

Kindly find the attached questions for the study.

Thanking you in anticipation.

Yours Faithfully,

Selma lilonga

M.Bibl Student

University of the Western Cape

Email Address: nategak@gmail.com / siilonga@unam.na

Cell: Namibia 081 2953883, South Africa 0738811455

Letter of Consent

Herewith, I..... have had the opportunity to ask any questions related to this study, and have received satisfactory answers to my questions. I understand that all information to be gathered is confidential and will not prejudice me in any way. Therefore, I voluntarily agree to take part in this research. I am also aware that I may withdraw from this study at any stage.

Participant Signature:.....

Interviewer Signature:.....

Date:.....

Researcher's contact details:

Selma lilonga

Email Addresses: nategak@gmail.com / siilonga@gmail.com

Cell: Namibia 081 2953883, South Africa 0738811455

APPENDIX 2



REPUBLIC OF NAMIBIA
MINISTRY OF EDUCATION

Tel: (061) 293 3166 / 081-2521915
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Enquiries: Ms. R. Niskala
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Private Bag 13186
Windhoek

10 April 2012

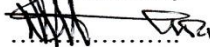
RE: APPROVAL FOR DATA COLLECTION: TO INVESTIGATE THE ROLE OF THE MINISTERIAL LIBRARIANS IN KNOWLEDGE MANAGEMENT

In response to your request dated 22 March 2012, to carry out a research on the role of Ministerial Librarian in knowledge management. The Ministerial Library Service under the Directorate of Namibia Library and Archives service (Ministry of Education of the Republic of Namibia) is hereby granting you approval to carry out your study with the Librarians that fall under the sub-division of the Ministerial Library Service. As for the Ministries that have their Libraries on their own establishment, you are advised to make direct arrangements with the specific Ministries.

This approval is based on the condition that you will provide a copy of the outcome of your study to the Ministry of Education: Directorate of Libraries and Archives Service.

Wishing you all the best of luck on your studies

Yours Sincerely


Ritva Niskala
Chief Ministerial Librarian



All official correspondence should be addressed to the Permanent Secretary

APPENDIX 3

RESEARCH INSTRUMENT


Semi-structured interview questions

Self introduction

My name is Selma lilonga, a registered master's student in Information Studies at the University at the Western Cape, Library and Information Science Department, in Cape Town South Africa. The topic of my research thesis as a requirement for the completion of the degree is 'The role of Knowledge Management among Ministerial Librarians in Namibia'. I will be using semi structured interview questions to collect information for the study from you.

Interview responses are anonymous, and information is confidential.

QUESTIONS

- 
1. When we talk about knowledge management, what comes to your mind as a librarian?
 2. What qualification do you have?
 3. What types of knowledge do you have in the library (tacit or explicit) (define tacit and explicit for the participants). How is the knowledge organised and stored in the library?
 4. How do you practice knowledge management using the following stages:
 - 4.1. Get:
 - 4.1.1. How do you acquire and collect external and internal knowledge resources for the library?
 - 4.1.2. What do you consider in the process of acquiring / collecting knowledge contents for the library?
 - 4.1.3. Describe the print resources available in the library and the electronic resources?
 - 4.2. Use:
 - 4.2.1. After getting or acquiring the knowledge resources, how do you market them to the ministry employees to ensure that they are aware of the resources available in the library?
 - 4.2.2. What knowledge management tool do you use for promoting and marketing the resources?
 - 4.2.3. And how do you ensure that employees know how to search the knowledge assets or database of the library?
 - 4.2.4. Does the library have computers for the users / patrons and if it has, how many?

4.3. Learn:

4.3.1. Learning in this study is about learning from knowledge being shared and transferred among the librarians and within the ministry. How do you as librarian share and transfer knowledge amongst your colleagues? For examples by attending library association, conferences, meetings, communicate via a discussion forum, or electronic community of practice network, attending training/short courses/workshops. Who facilitate all that?

4.4. Contribute: deals with getting employees to share their knowledge via the communal knowledge base (repository, intranet for knowledge transferring).

4.4.1. How do ministerial departments distribute their knowledge (workshop, seminar /conference reports, project reports, short courses report) to the library to be processed and be made accessible to the entire ministry to benefit everyone?

4.5. Assess: is about assessing and evaluating the value and quality of the knowledge resources available in the library.

4.5.1. Does the library have a strategic mission? How does the mission of the ministry influence the collections of the library?

4.5.2. How do you go about conducting the library assessment and evaluation process, and how often do you conduct it?

4.6. Build and sustain: is about building reliable and flexible knowledge assets that are fit to sustain the organisational knowledge for future use to be locatable and retrievable.

4.6.1. How do you ensure this is done effectively by ensuring that the knowledge system, databases used for organising, storing and retrieving library resources are able to sustain the resources for a longer time?

4.6.2. Question for the chief librarian: how do you ensure that the knowledge, skills, and experiences of valuable librarians remain in the directorate in order to be passed on to future librarians?

4.6.3. Do you ask librarians to write down how they use to do their job, before they leave their office? Yes / no. Please explain.

4.6.4. How does the capacity building of librarians done to ensure you have skilled and experienced staff in the directorate to deliver quality library service in their respective ministries?

4.7. Divest: the stage involves examination of intellectual capital in terms of resources required to maintain it.

4.7.1. What do you consider when terminating subscriptions of library resources contracts, training programs, / replacing or upgrading library information system, / weeding of the library collection, and how do you go about it?

5. What skills do you think are required by librarians to practice knowledge management effectively?

6. What are the challenges facing librarians to effectively practice knowledge management?
7. What do you think are the solutions to the identified challenges?

