# Editorial

There are eight articles carried in this issue six of which are substantive papers and two are short communications. These articles cover a wide range of library and information science (LIS) issues on diverse African information environment. The lead paper is cross cutting and addresses the subject of *research data management in the information society*. The remaining seven articles cover four broad thematic areas including: Information and communication Technologies (ICT ) and information services delivery; resource and knowledge sharing; records management and preservation and finally job satisfaction among cataloguers in universities in Nigeria.

The lead article on *research data management* is aimed at creating awareness among key stakeholders-researchers, professional LIS staff, support staff involved in managing/administering research; data archives and centres; open access services; and national archives that hold public records on the responsible management of the research process. The papers on *records management and preservation* are aimed at underscoring the importance of proper records management in the auditing process to avert risk of loss of such records and the implications for good corporate governance in achieving accountability and transparency in the running of public sector organisations.

The papers on *ICT and information services delivery* investigate the central role played by (ICTs) in the delivery of information to people with visual impairment and on wheelchairs in Tanzanian academic libraries, on one hand and the effectiveness of Facebook as a tool for information service delivery (ISD) in libraries on the other. The articles *on resource and knowledge sharing* focus on management of explict knowledge (library resource sharing) and tacit knowledge (knowledge sharing) in university environments**.** The article on *job satisfaction among cataloguers in federal and private university libraries in Nigeria* is aimed at comparing job satisfaction among cataloguers in order to proffer the necessary management interventions to improve the work environment for the cataloguers in Nigeria .

# AFRICAN JOURNAL OF LIBRARY, ARCHIVES AND INFORMATION SCIENCE

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## AIMS AND SCOPE

African Journal of Library, Archives and Information Science is established mainly to provide a forum for librarians, archivists, documentalists, information scientists and other information related professionals in Africa to report their research findings but with emphasis on African setting. The Journal is refereed by distinguished scholars. Emphasis is on empirical research; however, manuscripts of high quality on theoretical aspects of the three information related disciplines will be considered for publication.

## MISSION

To provide on a regular and sustainable basis an excellent scholarly journal for reporting empirical research findings in the information profession in Africa

## VISION

To be the main resource base for library, archives and information science research in Africa

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Contributors are to submit the manuscript by e-mail file attachment. The title, author's name, position and place of work should appear on the first page. Subsequent pages, not more than 15, should include an informative abstract of not more than 100 words. A manuscript will be considered only if it has not been published elsewhere.

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Aboyade, B.O. 1989.T*he provision of information for rural development.* Ibadan: Fountain Publications, 104 p.

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Neill, J.R. and Kotei, S.I.A**.** 1981. Towards a national information system for Botswana. In: Inganji, Francis (ed.) *Use of information and documentation for planning and decision making.* Gaborone: NIR, pp. 36 – 53.

No charge is made for publication. Reprints of articles will be made available to authors.

Manuscripts and other editorial materials should be simultaneously directed to the Editor-in-Chief, Professor Stephen M. Mutula, University of KwaZulu-Natal, Scottsville, South Africa (mutulas@ukzn.ac.za) and the Publishing Editor, Professor Iyabo Mabawonku, University of Ibadan, Ibadan, Nigeria (imabawonku@gmail.com).

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# Editorial Feature

# Managing Research Data in the Information Society

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The global society is now than before required to apply varied interventions to address such complex challenges as poverty; climate change; environmental degradation; digital divide; development gaps between industrial countries and less industrialized ones; biodiversity; killer diseases such as Ebola, HIV/AIDS and Malaria. Increasingly, high impact multidisciplinary, and trans-disciplinary collaborative research is seen as a panacea to helping address these complex societal challenges and many more. Consequently, progressive governments are creating conducive environments for increased investment in various types of research – academic, contract, sponsored, collaborative, applied, and basic. High impact research including research published in scholarly journals such as AJLAIS, generally generates large quantities of data most of which is not used at all leading to duplication of further research, lost investment, lack of access to research data, poor quality of research output and poor decision making.

Universities globally are being challenged to provide leadership in research innovation, commercialisation and entrepreneurship. The increasing influence of the academic global ranking of universities can be seen in this light. The academic global ranking systems are aimed at stimulating and encouraging universities to innovate and commercialise their research products. The rankings systems consider, among other factors, how institutional statistics including research data is managed (World University Ranking, 2011). The ranking provides indications of the commitment of universities to the dissemination of scientific knowledge. Consequently, universities and scholars in both the public and the private sectors are now expected to review the role and status of national research innovation systems and international trends in the knowledge-based societies. The academic global ranking of universities provides a platform for researchers, policymakers and relevant stakeholders to engage critically with key elements underpinning research systems such as policy trends, infrastructure, human capacity and investment (World University Ranking, 2011). In this regard, African Heads of States Summit in Addis Ababa in 2007 urged all African Union member- states to allocate at least 1% of their GDP to Research and Development (R&D) by 2020 (Mutume, 2007) to stimulate scientific and technological innovation.

Explicit public policy is therefore needed, especially in developing world, to reinforce and ensure that higher education and research receive adequate investment from both private and public sectors for infrastructure development in the form of laboratories, equipment, libraries, and a system of information storage, retrieval, and utilisation (Sawyer, 2006).

The importance of managing research data whether for large projects or for the purpose of publication in scholarly journals has become imperative. Management Consultant David Little underlined the importance of research and its output saying research is the heartbeat of the academy. Elsewhere, a report of the US President's Council of Economic Advisors reveals, that 50% of the growth in the American economy is attributed to investments in research and development (Atkinson, 1997). Without reliable data to show how research drives economic growth and development, it is difficult to effectively convince governments to invest in R&D. According to Microsoft Technet (2012), the US uses 30 billion documents each year of which 85% are never retrieved; 50% are duplicated; 60% become obsolete; and for US$1 a company spends to create a document, US$10 is used to manage document creation process. Data collected through national longitudinal surveys on such subjects as population, food, crime, health and poverty generate diversity of data formats requiring prudent management for such data to remain accessible in the short, medium and long terms.

The responsibility of managing research data is a role that must be shared by various stakeholders including: researchers who create the data; principal investigators who design research; support staff who manage and administer research; institutional IT services; data archives and centres; libraries; academic and central administrative units; open access services; and national archives that hold public records. In their efforts to manage these data, these stakeholders must ensure compliance with ethical standards —- rights, dignity, health, safety and privacy, welfare of animals and the integrity of the environments; and consistent procedures in the research lifecycle —— collecting, processing, checking, validating and verifying data. In addition, managing research data should ensure self-explanatory nomenclature of data in terms of variable names, codes and abbreviations; use of metadata that explain meaning of data - how they were collected and the methods used to create them; conforming with rights management and anonymisation. The World Summit on Information Society (WSIS, 2005) Action Line 10 (ethical dimension of information society) provides guidelines on what other ethical issues must be considered in the responsible use of information. Researchers must ensure that they have facilities to store data actively used in current research, data recovery and backup services, and metadata management services that reveal what research data exists, why, how it was generated, and how it is to be accessed.

Research in library and information sciences (LIS) remain limited compared to the other social sciences and humanities disciplines. Meho & Spurgin (2005) found that in a list of 2,625 items published between 1982 and 2002 by 68 faculty members of 18 schools of library and information science, only 10 databases provided significant coverage of the LIS literature. However, the management of LIS research data remains poor. Akinwumi (2013) in this regard observed that most library materials are not properly indexed and abstracted because librarians/library staff are not properly trained in the art of indexing and abstracting. This finding should concern LIS professionals and scholars because the essence of information is to get it at the right time to the users. Consequently the importance of indexing and abstracting research output for effective retrieval and dissemination of information must take great consideration in LIS professional and scholarly practice.

Data that is generated through LIS research like any research generated in other disciplines must be managed in ways that conform to the tenets and practices of data management described above. LIS tools that are currently used to manage research data include but are not limited to indexing and abstracting services, print and online journals, digital libraries, digital repositories, etc. For example, Library and Information Science Abstracts, (LISA) is an international indexing and abstracting tool that has existed since 1969. It was designed for library professionals and other information specialists. LISA covers the literature in Library and information science (LIS) and abstracts hundreds of periodicals from around the world in diverse languages. LISA covers bibliographic data in the field of information science and library science. It also covers such LIS cognate areas such as publishing, online retrieval, and information technologies. Similarly, Library and Information Science Technology Abstracts (LISTA) was created by librarians and covers conference proceedings, theses and pamphlets. The other research data management services in LIS include the Library Literature & Information Science Full Text which provides PDF page images of all full-text articles since 1970 covering indexed and abstracted journals, of key library and information science periodicals. Furthermore, *EBSCO Discovery Service* (EDS) is a federated data management tool that provides fast, access to the entire library's content. The other LIS research data management tool is Library Literature & Information Science - a bibliographic database that indexes key library and information science periodicals published in the United States and elsewhere since 1984. The tool covers books, chapters within books, conference proceedings, LIS theses, and pamphlets

Many other tools exist to manage research data in LIS and cognate fields such as: Online bibliographic databases such as Ohio Computer Library Centre (OCLS), South African Bibliographic Network (SABINET) and African Journals Online (AJOL). Others include Library Literature & Information Science Retrospective 1905-1983 (H.W. Wilson) which contains citations of all the innovations, and people instrumental in the making of modern librarianship; ERIC-Index to journal articles from 1969 to the present on educational research and practice; ProQuest Digital Dissertations- Index to doctoral dissertations from 1861 to the present; Directory of Open Access Journals DOAJ- a comprehensive coverage of all open access scientific and scholarly journals that use a quality control system to guarantee the content; and JSTOR which provides access to several collections of back files of scholarly publications covering the social sciences, humanities, and sciences(UCLA Library, 2014)

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# Attitude, Perceptions and Motivation towards Knowledge Sharing: Views from Universities in Kwara State, Nigeria

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## Abstract

*Knowledge sharing is envisaged as an important and natural activity in the knowledge-based environment such as a university where knowledge production, distribution and application are ingrained in the institution, signifying the eagerness of academics to share knowledge. The purpose of this paper is to examine the attitude, perceptions and motivation towards knowledge sharing among faculty members in the universities in Kwara State, Nigeria comprising two government and two private owned universities. Another objective is to emphasise the significant role attitude, intention and intrinsic motivation play in knowledge sharing. A survey collection method comprising a 21-item questionnaire was used. The findings revealed, that attitude is significantly associated with intention to share knowledge; intention is significantly associated with knowledge-sharing behaviour; and , intrinsic motivation is significantly associated with knowledge-sharing behaviour. The findings of the study provide insights into faculty members' attitude, intention and motivations towards knowledge sharing and strategies for enhancing knowledge sharing in institutions.*

**Keywords:** Knowledge Sharing, Knowledge Management, Attitude, Perception, Motivation, Intention, Higher Institutions.

## Introduction

Knowledge Management (KM) can be described as a collection of practices used by individuals and organisations to identify, create, represent and distribute knowledge (Aamir et al, 2009). To this end KM may be defined as doing what is needed to get the most out of knowledge resources. As economies are now referred to as knowledge based, knowledge is regarded as one of the most important strategic resources in various facets of our day-to-day life. Organisations (commercial and academic) now base their capabilities on the distinct competencies in sharing and integrating information and knowledge. Majority of researchers and practitioners consider sharing knowledge as positively related with the performance of the organisation by increasing organisation's resources and reducing the time wasted in trial and error (Aamir et al, 2009). Sharing of knowledge is considered as one of the cardinal points of knowledge management; and to this end, it is a well, discussed component of knowledge management.

Sohail and Daud (2009) posited that knowledge sharing is a very important unit of the knowledge management system in any organisation. The vast availability of knowledge, especially through the use of information and communication technologies (ICTs), is increasing peoples' value for knowledge and by extension is contributing to the increasing importance of knowledge sharing. It has been identified in the literature that knowledge sharing is an important component of the knowledge management paradigm (Sohail and Daud, 2009). The knowledge-based nature of institutions of higher learning makes knowledge sharing very essential as most players (students, lecturers and administrators) in institutions of higher learning are knowledge workers and knowledge inclined. In the context of universities as a centre of knowledge, knowledge sharing among knowledge holders may help in improving knowledge status within the university environment, hence the need for this research. The objectives of this study therefore were to:

- understand the attitude and perception of faculty members towards knowledge sharing;
- determine the relationship between attitude and intention of faculties to share knowledge, the relationship between intention and knowledge sharing behaviour, and the relationship between intrinsic motivation and knowledge-sharing behaviour of faculty members.

## Literature Review

### Knowledge Management Versus Knowledge Sharing

Knowledge management (KM) refers to the overall process of activities affecting knowledge: creating, capturing, identifying, organising, storing, representing, transferring, and reusing knowledge. Several definitions are proposed for knowledge management. According to Basu and Sengupta (2007), knowledge management can create a competitive advantage for academic institutions, if utilised appropriately. This is possible since the knowledge created and stored will serve as the repository to benefit scholars and researchers to advance the knowledge cycle and to distinguish the institution in the academic market place. Knowledge management is also seen as the process through which organisations generate value from their intellectual and knowledge-based assets.

In contrast, "knowledge sharing" according to Allameh and Ahmad (2012) consists of a set of behaviours containing knowledge and information exchange and helping others in this respect. To Zawawi et al (2011), knowledge sharing is the social interaction culture, involving the exchange of knowledge, experience and skills through individuals or the organisation as a whole. The goal of knowledge sharing is to convey the knowledge and experiences of people and keep them as organisational resources and wealth in order to increase and materialise the organisational effectiveness (Allameh and Ahmad 2012). Seonghee and Boryung (2008) see knowledge sharing as a state of being aware of knowledge needs, constructing technical and systematic infrastructure, and making knowledge available to others who need it. In addition, knowledge sharing happens when an individual tends to get help and learn from others to develop new competencies.

Cheng, Ho and Lau (2009) explain that there are two non-exclusive ways of knowledge sharing, i.e. closed-network sharing (person-to-person sharing) and open-network sharing (sharing through a central open repository). In the closed sharing model, an individual has the freedom to decide the mode of sharing and choose partners to share his or her knowledge. This type of interaction allows more personal touch and more directed sharing is expected. Many factors would explain the success of the sharing activity in this model, including personal relationship and trust. On the other hand, the open-network sharing refers to the sharing of knowledge among members of a group through a knowledge management system, typically a central database system. It involves multiple individuals sharing multiple knowledge assets in the system. Knowledge asset in this form of sharing carries the characteristics of a public good, thus insufficient voluntary sharing is anticipated (Müller, Spiliopoulou and Lenz, 2005).

### Attitude towards Knowledge-Sharing Behaviour

The Theory of Planned Behaviour (TPB) has been one of the most influential theories in explaining and predicting behaviour, and it has been shown to predict a wide range of behaviours (Sheppard, Hartwick, and Warshaw, 1988). TPB is an extension of the researcher's earlier work... Theory of Reasoned Action (TRA). TPB posits that individual's behaviour is determined by behavioural intention and perceived behavioural control. According to Ajzen (1985), behavioural intention is determined by attitude toward behaviour (ATT), subjective norm (SN), and perceived behavioural control (PBC). Attitude toward behaviour reflects one's favourable/ unfavourable feelings of performing a behaviour. Subjective norm reflects one's perception of relevant others' opinions on whether or not he or she should perform a particular behaviour. Perceived behavioural control reflects one's perceptions of the availability of resources or opportunities necessary for performing a behaviour (Ajzen and Madden, 1986).

Attitude has long been shown to be significant predictors of organisational behavioural intentions, and this relationship has received substantial empirical support. Bock, Zmud, Kim and Lee, (2005) conducted a survey with thirty organisations to test a knowledge sharing model, and the results suggested that attitude toward knowledge sharing positively and significantly influences behavioural intention. Also, based on the theory of reasoned action, Kwok and Gao (2005), investigated the attitude of individuals towards knowledge sharing by examining three variables, namely extrinsic motivation, absorptive capacity and channel richness as influential factors affecting people's attitude towards knowledge sharing. A structural survey was conducted to test the relationships between attitude and the three variables. The results showed that extrinsic motivation imposed no impact on an individual's attitude towards knowledge sharing while the other two factors played a significant part.

### Intention to Share Knowledge

Intention has long been found to be significantly associated with actual behaviour (Chen, Chen and Kinshuk, 2009). The theory of planned behaviour by Ajzen (1991) explains that behavioural intentions are motivational factors that capture how hard people are willing to try to perform a behaviour. In addition, Theory of Planned Behaviour suggests that behavioural intention is the most influential predictor of behaviour; after all, a person does what she intends to do (Pavlou and Fygenson, 2006). There is also substantial empirical support that confirms the relationship between the two variables, i.e. intention and behaviour (Pavlou and Fygenson, 2006; (Sheeran and Orbell, 1999).

### Intrinsic Motivation for Sharing Knowledge

Ordinarily, individuals engage in an activity when they expect to gain economic benefits such as increased pay, bonuses, job security, or career advancement. As contained in the Economic Exchange Theory, individuals behave based on rational self-interest (Lin, 2007). In knowledge sharing activity, people get back something in exchange for what they have contributed as cost e.g. time, energy, potential loss of ownership and power, and this is referred to as extrinsic motivation. Based on the Economic Exchange Theory, Lin (2007) posits that individuals are willing to transfer their knowledge since they expect benefit. Previous researches in knowledge sharing have identified extrinsic motivators to include organisational rewards, expectations of reciprocity, reputation and loss of knowledge power (Kankanhalli and Kwok, 2005) and intrinsic motivators to be pro-social behaviour, altruism, enjoyment in helping others and community advancement (Wasko and Faraj, 2000). A number of studies found no relationship between extrinsic motivation and knowledge sharing intentions or attitudes toward knowledge sharing (Kwok and Gao, 2005). However, there are studies that have shown that people are willing to share knowledge because they feel satisfied with their immediate needs. They are ideally motivated by achieving their self-defined goals and fulfilling tasks. Lin (2007) states that people who engage in an activity for their own sake, out of interest, or for the pleasure and satisfactions derived from the experience are known as people who are intrinsically motivated.

The 'intrinsic motivation' as a construct is based on the concept of altruism. Altruism exists when people perform a behaviour intending to benefit others without expecting anything in return.

People help others because they draw intrinsic enjoyment from helping others (Kankanhalli and Kwok, 2005). According to Kollock (1999), individuals share knowledge because they believe helping others with challenging problems is interesting and because helping others make them feel good. Thus, by fulfilling their own altruistic and pro-social motives, people derive intrinsic enjoyment. In addition, Welschen, Todorova and Mills (2012) brought together insights from motivational research, Self-Determination Theory and the Theory of Reasoned Action. Their study investigated the links between intrinsic motivators and knowledge sharing. Survey data collected from knowledge workers were analysed using partial least squares, and the results showed that self-efficacy, meaningfulness and impact are important motivators of attitude towards knowledge sharing, which in turn impacts intention to share knowledge.

Based on the theories reviewed from the literature and modified to suit the study for university academics, the research framework designed for the study is presented in Figure 1.

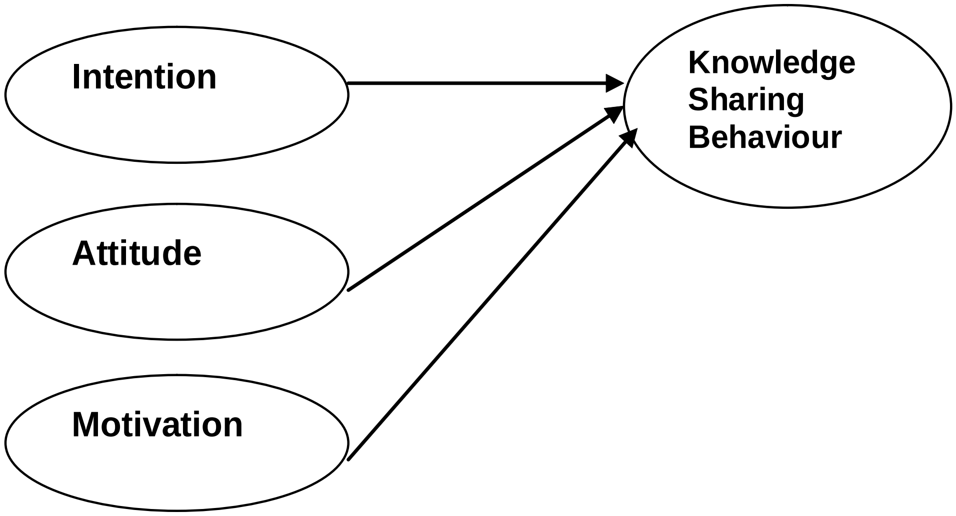


**Figure 1: Research Framework**

Consequently, three factors were considered as independent variables (attitude, intention and intrinsic motivation) in this study, and the researchers examine the effect of these variables on the dependent variable, which is the knowledge-sharing behaviour of university faculty members. The relationship between attitude and intention of faculties to share knowledge, the relationship between intention and knowledge-sharing behaviour, and the relationship between intrinsic motivation and knowledge-sharing behaviour of faculties are thus examined.

## Development of Hypothesis

Following the Theory of Planned Behaviour, attitude towards knowledge sharing is formed from behavioural beliefs and refers to the degree of positive/negative feelings an individual has towards the intention to share knowledge with other members of the organisation. Higher attitudinal disposition towards knowledge sharing should increase knowledge-sharing intention. Thus it is hypothesised that:

> *H1. There is a significant relationship between attitude of faculty members toward knowledge sharing and their intention to share.*

Knowledge-sharing behaviour of an individual is theorised to be collectively determined by his/her intention towards knowledge sharing. Knowledge-sharing behaviour is the degree to which knowledge worker actually shares knowledge with other members of his/her faculty. Intention measures individual's readiness to engage in knowledge sharing. Consistent with TPB, it is expected that favourable intention to share knowledge will lead to greater sharing of knowledge. Thus it is hypothesised that:

> *H2. There is a significant relationship between faculty members' intention to share knowledge and their knowledge-sharing behaviour.*

Behaviour is autonomous to the extent an individual experiences choice and acts with a sense of true volition because of the personal significance of the behaviour. An example of autonomous motivation is intrinsic motivation, for example, when individuals engage in knowledge sharing voluntarily because they find it interesting, they are sharing the knowledge entirely volitionally. Wasko and Faraj (2000) observe that individuals are intrinsically motivated to share knowledge with others because they derive enjoyment in helping others. Participants are motivated to share knowledge with others because they consider helping others and sharing knowledge "is the right thing to do." People feel that they are morally obligated to share knowledge in order to contribute positively to the community advancement. By fulfilling their own altruistic and pro-social motives, people derive intrinsic enjoyment. The third hypothesis therefore predicts that:

> *H3. Intrinsic motivation of faculty members will significantly affect their knowledge-sharing behaviour.*

## Research Methodology

The study employed a survey design. The sample was initially stratified across university type delineated by ownership. In this study, the ownership structure explored was that of government and private. From four Nigerian universities (2 private and 2 public), five hundred faculty members made up of graduate assistants to professors were randomly selected. Employing questionnaire as the data-gathering tool, a total of 500 copies of the questionnaire was administered. Out of the 500 copies of the questionnaire, 388 were returned, giving a response rate of 77.5%.

The questionnaire used as survey instrument for this study was made up of 21 items in 2 different sections. The first part of the questionnaire labelled as section A comprises 5 items. This section was designed to elicit educators' demographic characteristics. Section B of the questionnaire was made up of 3 subsections and 16 items which consisted of multiple choice questions to measure knowledge-sharing behaviour of faculty members in their teaching, research and professional activities. The subsections are: Attitude, Intention and Motivation for knowledge sharing. A Likert scale response pattern was used for the set of questions here. The response options are: Strongly Agree, Agree, Neutral, Disagree, and Strongly Disagree. They were weighted 5, 4, 3, 2, and 1 respectively.

The data collected were analysed using the Z-test of proportion between population and sample means, and Z-test of significant difference between two independent means. All tests were carried out at the 0.05 level of significance. To test the instrument for reliability, the questionnaire was initially circulated to 30 faculty members in the four different universities to determine the understandability of items included in the questionnaire, as well as to incorporate any useful suggestions that the faculty members might offer. Based on the feedback obtained, the instrument was modified for improvement through rephrasing and rewording. The reliability of items in section B of the questionnaire was measured using Cronbach's alpha. Alpha values obtained ranged from 0.71 to 0.85. The results of Cronbach's coefficient alpha are given in table 1 below.

**Table 1: Reliability Analysis**

| Variables | Number of Items | Alpha |
|---|---|---|
| Attitude | 6 | .79 |
| Intention | 5 | .85 |
| Motivation | 5 | .71 |

## Presentation and Discussion of Findings

The sections that follow present the findings.

### Demographic Information of Respondents

Demographic information of the respondents to the survey was obtained. The result showed that more male (61.6%) faculty members participated in the survey compared to their female counterparts (38.4%). A total of 30 respondents representing 7.7 % had Bachelor's degree as their highest educational qualification; almost half of the respondents (48.5%) had Master's Degree and the rest had doctoral degree. More of the respondents are from faculty members teaching in government-owned universities (63.4%). The number of years of experience varied, but those with 5 to 10 years of experience (30.0%) had the highest percentage.

**Table 2: Demographic Information**

| Variable | Classification | Frequency | Percentage |
|---|---|---|---|
| Gender | Male | 239 | 61.6 |
| | Female | 149 | 38.4 |
| Highest Educational Qualification | Bachelor's Degree | 30 | 7.7 |
| | Master's degree | 188 | 48.5 |
| | Doctoral degree | 170 | 43.8 |
| Status | Graduate Assistant | 30 | 7.7 |
| | Assistant Lecturers | 84 | 21.6 |
| | Lecturer II | 63 | 16.2 |
| | Lecturer I | 96 | 24.8 |
| | Senior Lecturer | 85 | 21.8 |
| | Associate Professor | 18 | 4.6 |
| | Professor | 13 | 3.3 |
| Institution Type | Public | 254 | 65.5 |
| | Private | 134 | 34.5 |
| Teaching Experience (in years) | Above 20 years | 47 | 12.1 |
| | 16 – 20 years | 90 | 23.3 |
| | 11 – 15 years | 75 | 19.2 |
| | 5 – 10 years | 117 | 30.0 |
| | Under 5 years | 99 | 25.4 |

## Knowledge-Sharing Behaviour as a Function of Institution Type

One of the questions this paper seeks to answer is whether there is a significant impact of type of institution on the knowledge-sharing behaviour of faculty members. The researcher is interested in knowing whether there is a significant difference between knowledge-sharing behaviour of faculty members working in public universities and those working in private universities. To answer the question, an independent sample t-test was carried out on the data. Table 3 shows that the mean values of knowledge-sharing behaviour of faculty members working in the two types of universities are closely related. The t-test (table 4) also confirms this insignificance with p-value (0.687) greater than 0.05. The result therefore indicates that there is no significant difference between knowledge-sharing behaviour of faculty members working in public universities and those working in private universities. Going by the findings of Wasko and Faraj (2000) who observed that individuals are intrinsically motivated to share knowledge with others because they derive enjoyment in helping others, the type of institution does not have any impact on knowledge-sharing behaviour.

**Table 3: Group Statistics**

| | Type of University | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Knowledge-Sharing Behaviour | Public | 254 | 4.0362 | .80190 | 0.0503 |
| | Private | 134 | 4.0690 | .84598 | 0.0731 |

**Table 4: Independent Sample T-test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | |
|---|---|---|---|---|---|---|
| | | F | Sig | T | Df | Sig. (2-tailed) |
| Knowledge Sharing Behaviour | Equal Variances Assumed | .08879 | 0.7659 | -0.2038 | 384 | 0.8386 |

## Years of Experiences and Knowledge-Sharing Behaviour

The second research question in this study sought to explore the influence of faculty members' teaching experience on their knowledge-sharing behaviour. A one-way ANOVA was employed for this purpose. Result in table 5 shows that there is a significant difference between knowledge-sharing behaviour of faculty members and different teaching experience (p-value 0.027>0.05).

**Table 5: ANOVA Analysis**

| | Sum of Squares | Df | Mean Square | F | Sig |
|---|---|---|---|---|---|
| Between Groups | 6.910 | 4 | 1.727 | 2.878 | .0275 |
| Within Groups | 229.849 | 383 | 0.600 | | |
| Total | 236.759 | 387 | | | |

In a bid to explore further where the difference in knowledge-sharing behaviour due to years of experience lies, a Duncan's range test carried out showed no significant difference was observed within groups but significant difference was indicated between groups with regard to knowledge-sharing (table 6). The results show that faculty members having more than 20 years experience and those with less than 5 years experience (group 2) reflect higher degree of knowledge sharing behaviour. The result might be the reflection of the fact that new faculty members are most normally likely to relate more with people they met on ground for the purpose of getting acquainted with their job and wanting to understand their new working environment, among others. For those more than 20 years on the job, they are most likely to be very senior faculty members who are most likely to be in the position to mentor other faculty members. This is the reason why some research has focused on retaining and engaging older workers so that organisations can take advantage of their experience and knowledge.

**Table 6: Duncan's Range Test**

| Teaching Experience (in years) | N | Subset for alpha = .05 | |
|---|---|---|---|
| | | 1 | 2 |
| 16-20 | 71 | 1.7893 | |
| 5-10 | 113 | 1.8826 | |
| 11-15 | 67 | 1.8858 | |
| More than 20 | 58 | | 2.3168 |
| Less than 5 | 79 | | 2.4836 |
| Sig. | | .067 | .524 |

## Analysis of the Hypotheses

Item analysis with a median of 2.5 was used to explore the degree of consensus on the items of each variable (attitude, intention and intrinsic motivation). Review of the item statements related to the attitude of educators shows that in general most faculty members have a positive attitude towards knowledge sharing (table 7); all respondents expressed their agreement that sharing knowledge can result in professional development and better performance in their job; almost 97% believed that sharing knowledge and experience leads to learning new knowledge and knowledge production. On the other hand, almost one-third of faculty members (29.1%) showed their agreement with the item statement that sharing knowledge and transferring experience provides a condition of misusing knowledge. This may be due to the lack of trust that faculty members might have towards their colleagues in which the latter might be misusing their knowledge, or because of lack of trust in validity and accuracy of their colleague's knowledge. Researchers have placed trust as an important facilitator and determinant in knowledge sharing, as employees require the existence of trust in order to respond openly and to share knowledge (Lin and Tseng, 2005; Bakker, Leenders, Gabbay, Kratzer, and Engelen, 2006).

In terms of the intention to share knowledge (table 8), faculty members across the universities showed high consensus of agreement on the statement "I am willing to share knowledge and experience which I acquired in teaching, research and professional activities" (95.7%) and "When my colleagues face a problem I try to help them as much as I can" (97.9%). Also, about 80% of them disagreed with the statement, "When I take part in meetings and seminars, I don't consider it necessary to tell my colleague about the results." In general, the results showed that most faculty members in this study had the intention to share knowledge with their colleagues. A high majority of faculty members agree on the intrinsic motivation for sharing knowledge, particularly the statements: "I am willing to share knowledge because I believe its outcome is achievement and success" (95.7%) and "I am willing to share knowledge because I enjoy helping others" (90.4%). Also almost 85% of educators like to share knowledge for the sake of solving colleagues' problems. On the other hand, the two item statements that obtained the lowest agreement consensus were, "I am willing to share knowledge because I can obtain reputation" (50.6%) and "I am willing to share knowledge as it makes my colleagues know more

**Table 7: Item Analysis of Faculty Members' Attitude towards Knowledge Sharing (N=388)**

| Aspect | Item Statement | Frequency and Percentage | | | | | Mean |
|---|---|---|---|---|---|---|---|
| | | SA | A | N | D | SD | |
| Attitude towards knowledge sharing | Sharing knowledge in teaching and research is followed with professional development and better performing. | 263 (67.7%) | 125 (32.3%) | | | | 3.19 |
| | Sharing knowledge and experience leads to learning new knowledge and knowledge production. | 221 (57%) | 254 (39.8%) | 8 (2.2%) | | | |
| | Sharing teaching materials with colleagues saves time. | 192 (49.5%) | 167 (39.8%) | 25 (6.5%) | 4 (1.1%) | | |
| | Sharing knowledge and transferring experience provides a condition of misusing for colleagues. | 6 (6.5%) | 88 (22.6%) | 108 (28.0%) | 121 (31.2%) | 33 (8.6%) | |
| | I know the importance of sharing know ledge in teaching and research. | 175 (45.2%) | 175 (45.2%) | 25 (6.5%) | | | |
| | In my opinion sharing knowledge has no effect on generating new ideas. | 21 (5.4%) | 25 (6.5%) | 21 (5.4%) | 167 (43.0%) | 134 (34.4%) | |

**Table 8: Item Analysis of Faculty Members' Intention to Share Knowledge (#388)**

| Aspect | Item Statement | Frequency and Percentage | | | | | Mean |
|---|---|---|---|---|---|---|---|
| | | SA | A | N | D | SD | |
| Intention to share knowledge | I am willing to share knowledge and experience which I acquired in teaching, research and professional activities. | **196** (50.5%) | **175** (45.2%) | **17** (4.3%) | | | 3.24 |
| | I try to participate in discussion groups and workshops to share knowledge. | 125 (32.3%) | 209 (53.8%) | 37 (9.7%) | 13 (3.2%) | | |
| | When my colleagues face a problem, I try to help them as much as I can. | 238 (61.3%) | 142 (36.6%) | 14 (1.1%) | | | |
| | When I take part in meetings and seminars, I don't consider it necessary to tell my colleagues about the results. | 4 (1.1%) | 21 (5.4%) | 54 (14%) | 192 (49.5%) | 117 (30.1%) | |
| | I am willing to share my notes, teaching files and research outcomes with colleagues. | 96 (24.7%) | 204 (52.7%) | 67 (17.2%) | 21 (5.4%) | | |

**Table 9: Item Analysis of Faculty Members' Motivation for Knowledge Sharing (N=388)**

| Aspect | Item Statement | Frequency and Percentage | | | | | Mean |
|---|---|---|---|---|---|---|---|
| | | SA | A | N | D | SD | |
| Motivation to share knowledge | I am willing to share knowledge because I can obtain reputation. | 71 (18.3%) | 125 (32.3%) | 129 (33.3%) | 59 (15.1%) | 4 (1.1%) | 3.02 |
| | I am willing to share knowledge because I enjoy helping others. | 159 (40.9%) | 192 (49.5%) | 38 (9.7%) | | | |
| | I am willing to share knowledge as it makes my colleagues know more about my skills. | 62 (16.1%) | 163 (41.9%) | 104 (26.9%) | 59 (15.1%) | | |
| | I am willing to share knowledge to solve my colleagues' problems. | 121 (31.2%) | 213 (54.8%) | 46 (11.8%) | 4 (1.1%) | | |
| | I am willing to share knowledge because I believe its outcome is achievement and success. | 230 (59.1%) | 142 (36.6%) | 12 (3.2%) | 4 (1.1%) | | |

about my skills"(58.0%). The results presented in table 9 indicate that intrinsic motivation such as helping colleagues was the most important reason that motivates faculty members to share knowledge, and sharing knowledge to obtain reputation was the least important reason chosen.

### Correlation Analysis

Pearson correlation coefficient was used to explore the correlation between (a) attitude and intention to share knowledge (Hypothesis 1), (b) intention and knowledge-sharing behaviour (Hypothesis 2), and (c) correlation between intrinsic motivation and knowledge-sharing behaviour (Hypothesis 3). The results of hypotheses testing are reported in table 10, which shows that all three hypotheses were significantly supported. As hypothesised, attitude is significantly associated with intention to share knowledge; intention is significantly associated with knowledge-sharing behaviour; and similarly, intrinsic motivation is significantly associated with knowledge-sharing behaviour (for all hypotheses, p-value obtained 0.000>0.05); and therefore, hypotheses H1, H2 and H3 are supported.

The findings of this study corroborate that of Shin, Ramayah and Jahani (2008) who tried to explain intention to share knowledge among academics by using Theory of Reasoned Action. Their results showed that there was a strong positive relationship between attitude towards knowledge sharing and the intention to share knowledge. It is also consistent with the previous works of others (Kim and Lee, 1995; Bock, Kim and Lee, 2005) who found that an individual's intention to share knowledge is driven primarily by attitude towards knowledge sharing. Attitude towards knowledge sharing is found to be positively and significantly correlated to the intention to share knowledge.

**Table 10: Results of Correlation Analysis (N=388)**

| Hypotheses | Significance | Correlation Value | Results of Hypotheses Test |
|---|---|---|---|
| H1: There is a significant relationship between faculty members' attitude toward knowledge sharing and their intention to share knowledge. | 0.000 | 0.526 | Supported |
| H2: There is a significant relationship between faculty members' intention to share knowledge and their knowledge sharing behavior. | 0.000 | 0.637 | Supported |
| H3: There is a significant relationship between faculty members' intrinsic motivation for sharing knowledge and their knowledge sharing behavior. | 0.000 | 0.603 | Supported |

## Conclusion

Knowledge plays a key role in today's demanding educational environment and contributes largely towards the sustained improved performance in an information-processing environment. This research has revealed the importance of perception, attitude and motivation in knowledge sharing. In managing the valuable knowledge asset, there is a need for higher institutions to foster organisational culture that encourages individuals to create, store and share because if academics are not willing to share and pass along their knowledge across the institution, the effort of knowledge management will fail, as knowledge sharing is more of a people-process practice than a technology-driven process.

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# A Comparative Study of Job Satisfaction between Cataloguers in Federal and Private University Libraries in Nigeria

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## Abstract

*TThe study aimed at comparing job satisfaction among cataloguers in federal and private university libraries in Nigeria and to identify what cataloguers are satisfied and dissatisfied with. The instrument used for data collection was the questionnaire. Data was collected from cataloguers in federal and private university libraries in Nigeria using on-line method. In total, 67 cataloguers from 32 university libraries in Nigeria responded to the questionnaire which was used for the analysis. Overall, cataloguers in federal university libraries were more satisfied with their job than their private university counterparts. This is as a result of differences that exist between cataloguers in federal and private university libraries in the following dimensions: roles and responsibilities, work culture, performance evaluation, rewards/ salaries/benefits, professional development, opportunities, and future concerns. Findings will inform library management, especially private university libraries, to improve working conditions of the cataloguers by way of providing necessary facilities, good remuneration, providing benefits, incentives, allowances to keep the cataloguers motivated and satisfied with their job.*

**Keywords:** Job Satisfaction, Cataloguing, Academic Libraries

## Introduction

There is the general notion that satisfaction at work influences many aspects of work such as efficiency, productivity, absenteeism, turnover rates, and intention to quit (Horenstein, 1993). Job satisfaction is simply how people feel about their jobs and different aspects of their jobs. It is the extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs (Spector, 1997). There are various components that are considered to be vital to job satisfaction. These variables are important because they all influence the way a person feels about his/her job. These components include the following: pay, promotion, benefits, supervisor, co-workers, work conditions, safety, productivity, and the work itself. Each of these factors affect an individual's job satisfaction differently. A librarian who cannot get adequate remuneration will be faced with the problem of maintaining his or her family. This problem puts the librarian far from being satisfied. Job satisfaction is not necessarily in place where there is absence of motivation. Job satisfaction of the librarian who has an important place in the information society will affect the quality of the service he renders. Straws and Sayles (1980) affirmed that job satisfaction has always been treated in connection with motivation because of the similarities between them. A properly motivated staff will get satisfaction in his job in the same way a librarian will be committed to his career when properly motivated.

This study considered job satisfaction among cataloguers. Danskin (2007) provides a broad definition of cataloguing by incorporating different kinds of activities as description of resource sufficient for the purpose of identification from other similar resources. It deals with the control of access points, subject analysis of resources, assignment of subject indexing terms and, most importantly, assignment of classification numbers, labelling and production of cards for the catalogueues. Cataloguers are responsible for all these cataloguing processes.

It is important to identify those aspects of a catalogueer's work that provide greatest satisfaction or dissatisfaction. When areas of dissatisfaction are improved, the catalogueer can carry out other activities such as research and publishing by virtue of his or her status as academic staff. Cataloguing and classification are difficult tasks; hence, a catalogueer needs a suitable working environment irrespective of type of university, be it public or private. If the cataloguers' needs are not being met, this may lead to low productivity. For these reasons, this study was aimed at investigating job satisfaction among cataloguers in public and private university libraries in Nigeria.

## Job Satisfaction among Librarians in Nigeria

Baro, Fynman and Zoukemefa (2013) studied job satisfaction among cataloguing librarians in university libraries in Nigeria. The findings revealed that cataloguers in university libraries in Nigeria are dissatisfied with dimensions such as roles and responsibilities, workplace culture, rewards (salaries/ benefits), and professional development. On the other hand, they are satisfied with administration and supervision, performance evaluation, and opportunities.

Tella, Ayeni and Popoola (2007) studied work motivation, job satisfaction, and organisational commitment of library personnel in academic and research libraries in Oyo State, Nigeria. The findings of that study revealed that a correlation exists between perceived motivation, job satisfaction, and commitment. They added that differences exist in the job satisfaction of library personnel in academic and research libraries and that no relationship exists in the organizational commitment of library personnel based on their years of experience. The study by Adio and Popoola (2010) on job satisfaction and career commitment of librarians in federal university libraries in Nigeria revealed that the librarians working in the federal university libraries in Nigeria were committed to their career and had job satisfaction.

Salaam, Alawiye, Okunlaya (2013) observed various causes of stress among librarians in Nigeria which included low pay, increased workloads, work-place, bureaucratic inertia and increased job competition. According to Salaam, Alawiye, Okunlaya (2013:144) "a stressed up and dissatisfied staff cannot render efficient and effective services to patrons." Reporting on the overall job satisfaction of cataloguers in university libraries in Nigeria, Baro, Fynman, and Zuokemefa (2013) found that more than half of the cataloguers who responded indicated that they were very satisfied, and almost half indicated they were somewhat satisfied. Ifidon (2006) reported that state university libraries were more cash strapped than their federal counterparts. Lack of motivation and proper funding to provide library information resources has affected the performance of librarians in rendering quality services to users of the library. This has greatly affected their attitude and commitment to work (Adio and Popoola, 2010).

Akinyemi and Ifijeh (2013) studied leadership style and job commitment of library personnel in private university libraries in South-West Nigeria. The study concluded that respondents were generally satisfied and contented with their overall job as library personnel in private universities in the South-West Nigeria. Tella, Ayeni and Popoola (2007) stated that one way of enhancing job satisfaction was to employ effective motivation, which makes workers more committed to their jobs. They stressed that money was not the only motivator as there were other incentives which could serve as motivators. Other factors identified in some other studies causing stress among librarians included job security, depleting information resources, poor funding, shortage of staff, dealing with people of different backgrounds, perceptions of lack of respect/recognition for librarians, technological stress, changing library environment, user demands, work overload, poor job incentives or rewards, poor interpersonal relations, and physical facilities (Ajala, 2011; Meade, 2013).

Atinmo (2011) advised that given the dynamics of the 21st century information landscape, there was the need for cataloguers to be retrained or to update their skills/knowledge so that they could perform at their best and could function appropriately; cataloguers must go beyond the ordinary training and be retrained to help eradicate digital illiteracy. She advised that cataloguers should become knowledgeable in the use of new and emerging technologies. Nanadozie (2010) conducted a study to establish levels and causes of stress among librarians in federal and state universities of the South-Eastern Nigeria. The researcher found that librarianship, like other professions, predisposes its practitioners to certain occupational stressors and these stressful experiences were caused by poor remuneration, unexciting job rotines, and inadequacy of the basic work tools of librarianship. Tella, Ayeni and Popoola (2007) recommended that library management should meet the demands of their personnel to strengthen their motivation, satisfaction, and commitment to minimise turnover. Similarly, Salaam, Alawiye and Okunlaya (2013) recommended that library staff should be highly motivated and encouraged so that a good degree of cooperation could be enjoyed from them.

## Methodology

In Nigeria, there are three categories of universities: the first category are those established by the federal government and funded by the federal government; the second category are those established and funded by the various state governments; the third are those established and funded by private individuals or missions. As a result of this development, the number of universities in Nigeria has increased tremendously. As at March 2014, there were 128 universities in Nigeria approved by the National Universities Commission (NUC) (NUC, 2014). Of this number, 50 are owned by private individuals or missions, 38 are state-owned, while 40 are owned by the federal government.

The population for the study consists of all professionally qualified cataloguers working in the 90 (40 federal and 50 private) university libraries in Nigeria. A questionnaire was e-mailed to 128 cataloguers in 61 university libraries in Nigeria which started in January 2014, with a requested return date of March 2014. E-mail addresses for cataloguers were collected from the “Practicing Librarians in Nigeria” list published by the National Library of Nigeria. A follow-up e-mail was sent to those who had not responded. In total, 67 cataloguers from 32 university libraries in Nigeria responded to the questionnaire giving a response rate of 52.3%. Every geographic region was represented, including the Federal Capital Territory, Abuja.

Thirty-two questions were formulated to address issues raised by earlier job satisfaction surveys and the authors’ experiences. The first four questions concerned demographic information, while the remaining 28 questions addressed eight broad areas of job satisfaction. They were: roles and responsibilities, workplace culture, administration and supervision, performance evaluation, rewards (salary/benefits), professional development, opportunities, and future concerns. Respondents were asked to rate their responses on a Likert scale of disagree (D), strongly disagree (SD), agree (A), and strongly agree (SA). The statements were written in a positive form. For the last item, respondents were required to indicate the extent of their overall job satisfaction, choosing from “very,” “somewhat,” and “little.” Responses were analysed using a simple percentage, frequency counts; the data is presented using tables and histogram.

## Results and Discussions

A description of the demographic characteristics of the respondents revealed slightly more males than females in the federal university libraries, while the respondents from private university libraries had more of females than males. Over half of the respondents in both federal and private university libraries had a master's degree in library and information science. Almost half of the respondents in both university libraries had worked between 5 and 10 years in the position of cataloguer (table 1).

**Table 1: Demograhic information of respondents**

| Gender | Federal | Private |
|---|---|---|
| Male | 22 | 10 |
| Female | 17 | 18 |
| **Total** | **39** | **28** |
| **Qualifications** | | |
| BLS | 9 | 7 |
| MLS | 28 | 21 |
| PhD | 2 | - |
| **Total** | **39** | **28** |
| **Years of experience** | | |
| Less than 5 years | 9 | 10 |
| 5-10 | 13 | 16 |
| 11-15 | 3 | 1 |
| 16-20 | 10 | 1 |
| 20 and above | 4 | - |
| **Total** | **39** | **28** |

## Roles and Responsibilities

Results showed that more cataloguers were in federal university libraries than private university libraries to perform the job (see table 2). This indicates that federal universities employ cataloguers that are sufficient to perform the work, while the private universities lack cataloguers to perform the work. For this reason, many private university libraries cataloguing duties are performed generally by all librarians. That is, combining the work duties of cataloguers with other librarians such as reference librarian, serial librarian, etc.

**Table 2: Responses from Federal and Private University Libraries on roles and Responsibilities**

| Roles and responsibilities | Status of Uni. | D | SD | A | SA |
|---|---|---|---|---|---|
| Q5. There are sufficient numbers of cataloguers to perform the work to be done. | Federal | 6 (21.4%) | 3 (10.7%) | 11 (39.3%) | 8 (28.6%) |
| | Private | 14 (35.9%) | 15(38.5%) | 6 (15.4%) | 4 (10.2%) |
| Q6. Work resposibilities are clearly differentiated between para-professional and cataloguer librarians. | Federal | 8 (28.6%) | - | 13 (46.4%) | 7 (25) |
| | Private | 4 (10.2%) | 7 (17.9%) | 16 (41.1%) | 12(30.8%) |

## Workplace Culture

Differences exist between cataloguers in federal and in private university libraries concerning work related stress. From the results, cataloguers in federal university libraries have little work- related stress than their private university counterparts (see table 3). Work-related stress can be caused by so many factors. Not providing the necessary facilities (such as internet connectivity) that concern the work to be done, lack of air conditioning and fans in the cataloguing room, too much workload as a result of insufficient cataloguers can cause stress to cataloguers in the private university libraries. The physical work environment may also contribute to job satisfaction. The results from the federal and private university libraries show that the cataloguers in the federal universities were satisfied with their physical work environment when compared to their private university counterparts. This may be as a result of direct funding from federal government to fund the federal universities in Nigeria. Also, the Tertiary Education Trust Fund (TETFund) in Nigeria (an agency under the ministry of education) also supports infrastructural and human development in public universities in Nigeria. On the other hand, private universities are denied of such funding opportunities from federal and TETFund. This no doubt results to the low infrastructural development in private universities, because they are established and funded by individuals or missions. Working in the cataloguing department is not always easy. Cataloguing and classification can be difficult and need a suitable working environment..

Employees are concerned with their work environment for personal comfort while doing the job. Employees prefer physical surroundings that are not dangerous or uncomfortable. Additionally, most employees prefer working in clean and modern facilities, such as well furnished offices, modern computers with stable internet connectivity, air conditioners, etc. Employees will be happy if he or she is provided with the necessary equipment for performing his or her duties effectively. The general belief is that happy workers are productive workers. When employees are dissatisfied with the jobs, they try to find excuses of staying away from their jobs. It can take place in two forms, especially absenteeism and voluntary turnover.

**Table 3: Responses from Federal University Libraries on Workplace Culture**

| Workplace culture | Status of Uni. | D | SD | A | SA |
|---|---|---|---|---|---|
| Q7. I have little work-related stress. | Federal | 16 (41.1%) | 6(15.4%) | 13(33.3%) | 4(10.2%) |
| | Private | 14 (50%) | 4 (14.3%) | 4 (14.3%) | 6(21.4%) |
| Q8. I am able to balance my work, family and personal life. | Federal | 15(38.5%) | 15(38.5%) | 6(15.4%) | 3(7.6%) |
| | Private | 14 (50%) | 8 (28.6%) | 2 (7.1%) | 4 (14.3%) |
| Q9. I have good relationship with coworkers. | Federal | 7 (17.9%) | 2 (5.1%) | 18(46.2%) | 12(30.8%) |
| | Private | 4 (14.3%) | 2 (7.1%) | 8 (28.6%) | 14 (50%) |
| Q10. The physical environment is healthy. | Federal | 9(23.1%) | 4 (10.2%) | 16(41.1%) | 10(25.6%) |
| | Private | 15 (53.6%) | 7 (25%) | 3 (10.7%) | 3 (10.7%) |

## Administration and Supervision

Results from the present study show that cataloguers in both federal and private university libraries were satisfied with the leadership style in the cataloguing department. The cataloguers were still satisfied for being consulted about issues directly related to their work, and for their work being valued by individuals outside the department (see table 4). Satisfaction tends to be higher among those who believe that their immediate supervisors are competent and treat them with respect and have their best interests at heart. Job satisfaction is enhanced when employees believe that the lines of communication with their supervisors are open.

**Table 4: Responses from Public and Private University Libraries on Administration and Supervision**

| Administration and supervision | Status of Uni. | D | SD | A | SA |
|---|---|---|---|---|---|
| Q11: The leadership in cataloguing is effective. | Federal | 2 (5.1%) | 7 (17.9%) | 18 (46.2%) | 12 (30.8%) |
| | Private | 3 (10.7%) | - | 18(64.3%) | 7 (25%) |
| Q12: Being consulted about issues directly related to my work. | Federal | 7 (17.9%) | 6 (15.4%) | 21 (53.9%) | 5 (12.8%) |
| | Private | 8 (28.6%) | 3 (10.7%) | 10 (35.7%) | 7 (25%) |
| Q13: My work is valued by individuals outside the department. | Federal | 8 (20.5%) | 8 (20.5%) | 14 (35.9%) | 9 (23.1%) |
| | Private | 7 (25%) | 3 (10.7%) | 10 (35.7%) | 8 (28.6%) |

## Performance Evaluation

In Nigeria, cataloguers in the universities and their counterparts in other departments are evaluated annually according to their performance and are either recommended for promotion after three years or not recommended for promotion. The outcome of such evaluations can make an employee to be satisfied or dissatisfied. Results from the present study revealed that almost half of the respondents from private university libraries indicated that they were not satisfied with the annual evaluation process (see table 5). Reasons may explain the low staff motivation in private university libraries, thereby affecting their satisfaction.

**Table 5: Responses from public and private university libraries on performance evaluation**

| Performance evaluation | Status of Uni. | D | SD | A | SA |
|---|---|---|---|---|---|
| Q14. I am satisfied with the annual evaluation based on the specific responsibilities of my position. | Federal | 6 (15.4%) | 5 (12.8%) | 20 (51.3%) | 8 (20.5%) |
| | Private | 3 (10.7%) | 10(35.7%) | 8 (28.6%) | 7 (25%) |

## Rewards/Salaries/Benefits

The results show that the cataloguers in federal universities were motivated with good pay and benefits than their private university counterparts in Nigeria (see table 6). Private university owners are there to make money, they show little concern for staff welfare. That is why many librarians in private university libraries are hunting for jobs in public universities. Reflecting on rewards/pay/benefits, one cataloguer from private university library stated, “what we are being paid is not motivating me, it is not enough to meet my needs.” This category of staff has the strong desire to change place of work simply because the pay is not encouraging. For example, the study by Olusegun (2013) on influence of job satisfaction on turnover intentions of library personnel in federal and state universities in South-West Nigeria reveals that library personnel in public universities were motivated although the level of motivation was not very high. The researcher further reported that on staff turnover, library personnel in public universities would quit if they have opportunities for better pay in similar organisations.

**Table 6: Rewards/salaries/benefits in federal and private university libraries on**

| Rewards/salaries/benefits | Status of Uni. | D | SD | A | SA |
|---|---|---|---|---|---|
| Q15. The money adequately cover my needs. | Federal | 8 (20.6%) | 2 (5.1%) | 23 (58.9%) | 6 (15.4%) |
| | Private | 9 (32.1%) | 11 (39.3%) | 7 (25%) | 1 (3.6%) |
| Q16. Benefit packages are provided adequately. | Federal | 5 (12.8%) | 2 (5.1%) | 18 (46.2%) | 14 (35.9%) |
| | Private | 10 (35.7%) | 10 (35.7%) | 5 (17.9%) | 3 (10.7%) |

## Professional Development

The results show that training opportunities were provided more to the cataloguers in federal university libraries when compared to cataloguers in private university libraries (see table 7). To this end, one can infer that fund is provided by federal universities which enable cataloguers to attend training workshops and seminars than private universities. In private university libraries, hardly are cataloguers sponsored to attend such training programmes due to lack of funding. One cataloguer from private university library commented, “we are not given opportunity to attend workshops or seminars that will develop our skills, I have applied to attend cataloguing and classification workshops severally but they will always say no funding is available.” No matter how automated an organisation or a library may be, high productivity depends on the level of motivation and the effectiveness of the workforce. Staff training is an indispensable strategy for motivating workers. The library organisation must have good training programme. This will give the librarian or information professional opportunity for self-improvement and development to meet technological challenges.

**Table 7: Professional Development in Federal and Private University Libraries**

| Professional Development | Status of Uni. | D | SD | A | SA |
|---|---|---|---|---|---|
| Q17: The emphasis placed on research and publication is appropriately balanced with my job. | Federal | 8 (20.5%) | 8 (20.5%) | 14 (35.9%) | 9 (23.1%) |
| | Private | 10(35.7%) | 9 (32.1%) | 4 (14.3%) | 5 (17.9%) |
| Q18: When new technologies or new products are adopted that concern my job, sufficient training is provided. | Federal | 6 (15.4%) | 4 (10.2%) | 16 (41.1%) | 13 (33.3%) |
| | Private | 13(46.4%) | 5 (17.9%) | 2 (7.1%) | 8 (28.6%) |
| Q19: My library supports the continuous education/training of cataloguer librarian. | Federal | 7 (17.9%) | 4 (10.2%) | 16 (41.1%) | 12 (30.8%) |
| | Private | 7 (25%) | 8 (28.6%) | 3 (10.7%) | 10 (35.7%) |
| Q20: Research grants. | Federal | 15(38.5%) | 3 (7.6%) | 15 (38.5%) | 6 (15.4%) |
| | Private | 8 (28.6%) | 13(46.4%) | 2 (7.1%) | 5 (17.9%) |
| Q21: Allows research on work time. | Federal | 4 (10.2%) | 6 (15.4%) | 13 (33.3%) | 16 (41.1%) |
| | Private | 7 (25%) | 12 (42.8%) | 4 (14.3%) | 5 (17.9%) |

Lamenting on the situation in Nigeria, Oladapo (2005) is of the view that there are professional librarians in Nigeria whose knowledge of library automation has been rendered obsolete owing to lack of training and retraining in modern library practices. He added that the new roles require cataloguers with ambition and drive with in-depth knowledge of IT applications and development, as well as the more traditional skills of information management.

For cataloguers in developing countries to be prepared for the future, they need to be prepared since the library world is changing worldwide in terms of application of information technologies in the service delivery. It would also be most practical and proactive for cataloguers to be prepared to adjust to these changes by making themselves suitable to handle workflow and activities as they come. James and Iroagonachi (2012) assessed the training and retraining needs of Nigerian cataloguers, and found that the cataloguers were depending more on on-the-job training for capacity building. The researchers discovered that there was less dependence on some other means of capacity building like video conferencing, reading web-based resources, electronic discussion list/weblog and mentoring.

## Opportunities

The results in table 8 revealed the differences between cataloguers in federal and in private university libraries. It emerged that cataloguers in federal university libraries were satisfied with the promotion or advancement within the library, opportunity for library committee services and opportunity to learn new skills than their private university counterparts. This finding agrees with Akinyemi and Ifijeh (2013) that most of the respondents indicated a participative style of leadership which allows members to share in decision-making and problem-solving. The respondents acknowledged the fact that a leader is not expected to know everything. Leaders believe that there are knowledgeable and skilful members who can assist and support them in the decision-making process. The finding of the present study also supports the findings of Varghese (2004) that managers' use of a participative management style and the employees' perceptions of participative strategic planning with supervisory communication are positively associated with high levels of job satisfaction. All these factors no doubt affect job satisfaction of librarians in the university libraries. The results revealed that most of the cataloguers in both federal and private university libraries were given opportunities to suppervise others. This finding agrees with the first major finding of the study on work values of the library personnel in the federal universities in Nigeria by Francis (2013) that delegating duties to others, being their own bosses, being in-charge of others, making others report progress of their work to them and making people have high regard for them in that order are the first five work values of federal university library personnel in Nigeria. This reveals that university library personnel in Nigeria cherish exercising authority and power over their subordinates than any other work values.

**Table 8: Opportunities in Federal and in Private University Libraries**

| Opportunities | Status of Uni. | D | SD | A | SA |
|---|---|---|---|---|---|
| Q22: Opportunity to participate in library planning and decision-making. | Federal | 8 (20.5%) | 16 (41.1%) | 8 (20.5%) | 7 (17.9%) |
| | Private | 8 (28.6%) | 6 (21.4%) | 6 (21.4%) | 8 (28.6%) |
| Q23: Opportunity for promotion or advancement within the library. | Federal | 9 (23.1%) | 5 (12.8%) | 14 (35.9%) | 11 (28.2%) |
| | Private | 8 (28.6%) | 9 (32.1%) | 5 (17.9%) | 6 (21.4%) |
| Q24: Opportunity to supervise others. | Federal | 11(28.2%) | 6 (15.4%) | 13(33.3%) | 9 (23.1%) |
| | Private | 9 (32.1%) | 3 (10.7%) | 8 (28.6%) | 8 (28.6%) |
| Q25: Opportunity to train others. | Federal | 9 (23.1%) | 6 (15.4%) | 13 (33.3%) | 11 (28.2%) |
| | Private | 9 (32.1%) | 4 (14.3%) | 8 (28.6%) | 7 (25%) |
| Q26: Opportunity for library committee service. | Federal | 4 (10.2%) | 11 (28.2%) | 20 (51.4%) | 4 (10.2%) |
| | Private | 10(35.7%) | 7 (25%) | 6 (21.4%) | 5 (17.9%) |
| Q27: Opportunity to learn new skills. | Federal | 14(35.9%) | 2 (5.1%) | 18 (46.2%) | 5 (12.8%) |
| | Private | 8 (28.6%) | 7 (25%) | 6 (21.4%) | 7 (25%) |

## Future Concerns

In regard to future concerns of cataloguers, differences exist between cataloguers in federal and in private university libraries in Nigeria. From the results, the majority of the cataloguers from federal university libraries were of the opinion that they did not plan to look for another job, they were not actively looking for a position in another academic library, and they are not actively looking for a position in another field (see table 9). This is a clear indication that the cataloguers in the federal university libraries in Nigeria were satisfied with their jobs. On the other hand, the responses from the cataloguers in th eprivate university libraries show that they were not satisfied with their jobs.

**Table 9: Future Concerns in Federal and in Private University Libraries**

| Future concerns | Status of Uni. | D | SD | A | SA |
|---|---|---|---|---|---|
| Q28. I do not plan to look for another job. | Federal | 5 (12.8%) | 6 (15.4%) | 21 (53.9%) | 7 (17.9%) |
| | Private | 12 (42.8%) | 8 (28.6%) | 3 (10.7%) | 5 (17.9%) |
| Q29. I would like to work in a different position in my current academic library. | Federal | 8 (20.5%) | 16(41.1%) | 7 (17.9%) | 8 (20.5%) |
| | Private | 5 (17.9%) | 4 (14.3%) | 13 (46.4%) | 6 (21.4%) |
| Q30. I am actively looking for a position in another field. | Federal | 8 (20.5%) | 25(64.2%) | 2 (5.1%) | 4 (10.2%) |
| | Private | 5 (17.9%) | 6 (21.4%) | 10 (35.7%) | 7 (25%) |
| Q31. I am actively looking for a position in another academic library. | Federal | 6 (15.4%) | 22(54.5%) | 4 (10.2%) | 7 (17.9%) |
| | Private | 6 (21.4%) | 2 (7.1%) | 15 (53.6%) | 5 (17.9%) |

### Overall Job Satisfaction

Overall job satisfaction is a combination of the persons feeling towards the different facets of their job. When respondents were asked to indicate overall, how satisfied they were with their current jobs as a cataloguers. The general responses are listed in table 10, which show that more than half of the respondents in federal universities were very satisfied with their jobs as compared with the private universities which recorded only 25% response as very satisfied.

The results show that cataloguers in federal university libraries were more satisfied than their private university counterparts (table 10 and figure 1). One cataloguer from private university library wrote, "If I have my way I will quickly change to federal university library, because a lot of allowances are paid to our colleagues in federal university libraries." This finding agrees with the findings of Adio and Popoola (2010) who studied job satisfaction and career commitment of librarians in federal university libraries in Nigeria, and found that these librarians were committed to their career and had job satisfaction. This implies that employees with higher level of job satisfaction, particularly satisfaction with work itself, are less likely to quit their jobs, absent from work and experience mental or physical health problem. The finding from the present study disagrees with earlier finding by Akinyemi and Ifijeh (2013) that librarians in private university libraries in South-West Nigeria were satisfied with their jobs.

Correlation of gender with overall job satisfaction shows that more males than the females indicated that they were very satisfied with their jobs, while more females than males indicated that they were somewhat satisfied with their jobs (table 11). Further correlation of the years worked with overall job satisfaction revealed that 39.3% of those who had worked between and 10 years indicated that they were very satisfied with their job. Of those who had worked for less than 5 years, 32.1% indicated that they were satisfied with their job (table 12).

**Q32.** Overall, how satisfied are you in your current job as a cataloguer?

**Table 10: Overall Job Satisfaction**

| Status of uni. | Very | | Somewhat | | Little | | Total |
|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | |
| **Federal** | 21 | 53.8 | 12 | 30.8 | 6 | 15.4 | 39 |
| **Private** | 7 | 25 | 8 | 28.6 | 13 | 46.4 | 28 |
| **Total** | **28** | | **20** | | **19** | | **67** |

**Figure 1: Correlation of type of university with overrall job satisfaction**

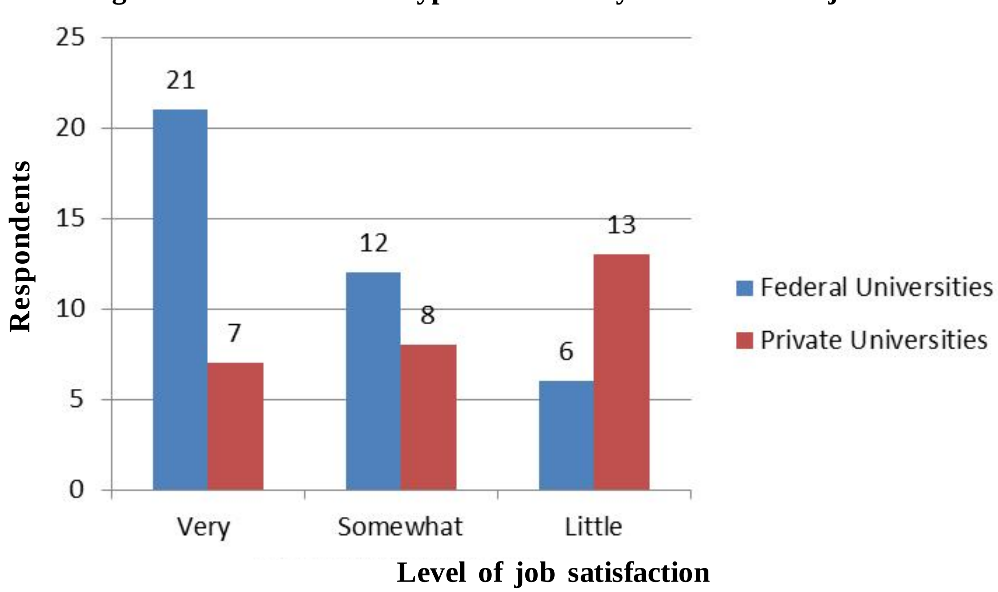

**Table 11: Correlation of Type of University with Overall Job Satisfaction**

| **Status of uni.** | **Very** | | **Somewhat** | | **Little** | | **Total** |
|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | |
| **Male** | 15 | 53.6 | 8 | 40 | 9 | 47.4 | 32 |
| **Female** | 13 | 46.4 | 12 | 60 | 10 | 52.6 | 35 |
| **Total** | **28** | | **20** | | **19** | | **67** |

**Table 12: Correlation of Years of Experience with Overall Job Satisfaction**

| **Years of experience** | **Very** | | **Somewhat** | | **Little** | | **Total** |
|---|---|---|---|---|---|---|---|
| | N | % | N | % | N | % | |
| Lest than 5 years | 9 | 32.1 | 8 | 40 | 2 | 10.5 | 19 |
| 5-10 yrs | 11 | 39.3 | 4 | 20 | 14 | 73.7 | 29 |
| 11-15 yrs | 2 | 7.1 | 2 | 10 | - | - | 4 |
| 16-20 yrs | 5 | 17.9 | 4 | 20 | 2 | 10.5 | 11 |
| 20 and above | 1 | 3.6 | 2 | 10 | 1 | 5.3 | 4 |
| **Total** | **28** | | **20** | | **19** | | **67** |

## Conclusion

Overall job satisfaction revealed that cataloguers in federal university libraries were more satisfied than their private university counterparts. Differences exist between cataloguers in federal and in private university libraries in the following dimensions: roles and responsibilities, work culture, performance evaluation, rewards/salaries/benefits, professional development, opportunities, and future concerns. Differences exist between the federal and the private universities concerning the number of cataloguers to perform the job. With regards to work culture, it emerged that the cataloguers in the federal universities were satisfied with their physical work environment when compared to the responses from their private university counterparts.

## Recommendations

In order to make cataloguers, especially in private university libraries, more satisfied and committed to their jobs in academic libraries, there is need for strong and effective motivation of cataloguers by way of rewards. Job satisfaction is important for library management in the sense that, a satisfied workforce translates into higher productivity due to fewer disruptions caused by absenteeism or employee quitting the job. Therefore, governments and library management, most especially private universities in Nigeria, should concentrate on improving the conditions for library personnel. One crucial area is training to cope with the integration of information technology into library practices. It is recommended that management should improve the skills, knowledge and competencies among cataloguers by giving them the opportunity to attend workshops/semnars to enable them remain relevant in the digital age. The study recommends that management should improve working conditions of the cataloguers in private university libraries by way of providing necessary facilities, good remuneration by providing benefits, incentives, allowances to keep the cataloguers motivated and satisfied with their job.

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# The Need for Records Management in the Auditing Process in the Public Sector in South Africa

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## Abstract

*There is a consensus among scholars that proper records management plays a significant role in the auditing process. Despite this role, in South Africa, many governmental bodies are issued with disclaimer opinions every year by the Auditor-General of South Africa (AGSA) due to a lack of supporting documentation. Whenever AGSA embarks on an audit assignment, the first constraint it faces is that records either do not exist or, if they do exist, are disorganised, and retrieval becomes problematic, resulting in a disclaimer of opinion. Furthermore, many public organisations rarely see the connection between the lack of proper records management and failures of financial accountability. This article reports on part of doctoral research project by Ngoepe in 2012 that sought to develop a framework to embed the records management function into the auditing process. However, this article seeks to investigate the role of records management in the auditing process in the public sector of South Africa, with a view to entrenching a culture of clean audits. The study relied on both quantitative and qualitative approaches, with the quantitative paradigm as the dominant design, while the qualitative paradigm was used to substantiate numerical data. Data collection adopted a multi-approach with three key sources of data: a questionnaire, interviews and literature review. The results indicate that in most governmental bodies records management did not form part of the internal audit scope, hence many record-keeping issues were identified by external auditors at a later stage. The study revealed that most governmental bodies have established internal audit units, audit committees and records management units, which did not work in unison. The study concludes by arguing that proper records management is one of the key enablers of the auditing process.*

**Keywords:** Auditing, Records, Records management, Record-keeping, Public sector, South Africa.

## Introduction and Background

Since the dawn of democracy in 1994, the public sector in South Africa has been plagued by an abyss of audit results and a perilous financial state. According to De Jager (2006/07,) it is not unusual for the media in South Africa to carry the following sentiments in their reports: "that the overall impression of the audit reports of governmental bodies (national departments, provincial departments, municipalities and statutory bodies) is one of financial disorder and widespread mismanagement of taxpayers' money." One of the contributing factors to the perilous financial state is often cited in the media as a lack of proper record-keeping, which causes monumental embarrassment to the affected governmental bodies. Indeed, the problem of poor record-keeping in public administration features prominently in reports generated by oversight mechanisms such as AGSA, the South African Human Rights Commission (SAHRC), the Standing Committee on Public Accounts (SCOPA) and to some extent, the National Archives and Records Service of South Africa (NARS). For example, when the external auditor of government (AGSA) audits governmental bodies, one of the constraints it faces is that records are either not available or could not be retrieved.

The significant role of proper records management in the auditing in both the public and the private sectors cannot be over-emphasised. Indeed, as Akotia (1996) would concur, "proper records management is increasingly becoming the only weapon through which organisations fulfil the requirements of the auditors." As it is commonly known, an auditor's main focus is on the lack of accountability and good governance (Bhana, 2008). In his editorial remarks, De Jager (2006/07) posits that for as long as auditing is undertaken, relevant and reliable records will be required as evidence. In fact, records management supports the entire accounting function, as the beginning of accounting circle starts with the creation of a record. As Akotia (1996) hits a chord, "a major defect in financial administration arises from failure to integrate accounting and records management process, with the result that essential information is lost or becomes subject to inaccuracies." Akotia (1996:6) believes that there needs to be adequate cross-reference between records management and account systems for organisations to manage finances properly. Put simply by Bhana and Ngoepe (2009):

> An ideal audit environment is one where an auditor can walk into an organisation and be provided with an audit file that contains the financial statements, which are in turn cross-referenced, to all the relevant supporting records in the same file or at least indicating where such records can be retrieved easily.

If such a quintessential environment existed, most, if not all governmental bodies in South Africa or organisations throughout the globe would achieve clean audit reports. However, the world is not always ideal. Although the auditing process is so simple in theory, Bhana (2008) and Nel (2011) cast a baleful light that the lack of adequate records or the challenges to retrieve records increase audit risk. Moving along the same spectrum, Akotia (1996) maintains that in the absence of records as evidence, an audit cannot proceed, which is what AGSA is experiencing in most government bodies. Whenever AGSA embarks on an audit assignment, the first constraint faced is that records either do not exist or, if they do exist, are disorganised and retrieval becomes a challenge (Nel, 2011). For example, the review of accounts by the Auditor-General of Ghana in 1996 indicated that "some of the account balances used in the preparation of the financial statements (FS) were not derived from authorised source documents and records" (Akotia, 1996). In these circumstances as outlined by Akotia (1996):

> When the Auditor-General (AG) is unable to vouch for the reliability of the financial statements and therefore unable to form an opinion as to whether the final accounts give a true and fair reflection of the public accounts, a dimension leading inexorably to a crisis of governance is created.

According to Akotia (1996), Bhana (2008), Nel (2011) and Palmer (2000) at the root of the crisis lies the old, often ignored requirement to manage public records.

The reciprocal relationship of proper record-keeping and auditing is also highlighted in many audit findings of various supreme audit institutions (SAIs). For example, since the 2001/02 financial year, the Australian National Audit Office (ANAO) (2006) conducted a series of audits to assess the extent to which entities were meeting their record-keeping responsibilities. The results indicate that the standard of record-keeping has been a recurring issue in ANAO audits in Commonwealth organisations. Many ANAO reports have noted an absence of, or only limited, on-going documentation or records, such as in audits of risk management and internal controls. Even more profoundly, Mosweu (2011) bemoans that conducting public audits in Botswana has been a strenuous exercise for the Office of the Auditor-General in that country, as the results were riddled with lamentations of poor records management. In his study, Mosweu (2011) links poor service delivery in Botswana to a lack of proper records management. The audit results in Sierra Leone are even more disconcerting as school records could not be found (Audit Service of Sierra Leone, 2009); while in Jamaica there was overstocking of drugs in hospitals due to malfunctioning records management systems (Auditor-General of Jamaica, 2011).

The public sector in South Africa can also identify with the above scenarios. In South Africa, when reporting on audit findings, AGSA is always on record noting the importance of keeping records as a key component of any entity's governance (Bhana, 2008; Nel, 2011; Ngoepe, 2009a; 2011). AGSA places a high premium on proper records management to the extent that in its general reports on audit outcomes, it lists "a clear trail of supporting documentation that is easily available and provided timeously" as the first of six good practice indicators[1] for government departments to achieve positive audit results (Bhana, 2008; Ngoepe, 2009b). In a more sobering conundrum, AGSA (2010) observes that government departments and municipalities often scrambled at the financial year-end to compile information for submission to AGSA in terms of the Public Finance Management Act (Act No 1 of 1999) and Municipal Finance Management Act (Act No. 56 of 2003). As a result, many governmental bodies in South Africa have sunk into an auditing abyss with records so badly organised that AGSA has been unable to express an opinion on the financial statements. Metrofile (2010) further observes that for many governmental bodies in South Africa, financial year-end is a stressful period as it invokes a range of mixed, and at times, anxious feelings, particularly when it comes to the external auditors from AGSA checking the supporting records. The monthly online column of AG (2011) also emphasised that governmental bodies in South Africa has a tendency to prepare the full set of accounts and the supporting documentation at the eleventh hour at the end of the financial year. Metrofile (2010) believes that much of the audit concern AGSA raises in governmental bodies can be mitigated through proper records management by ensuring that the information needed by auditors is properly arranged and readily available.

## Problem Statement

Despite the importance of recorded information to the auditing process as stated in the AGSA's six good practice indicators for governmental bodies to achieve clean audit results, many governmental bodies in South Africa are disclaimed every year due to a lack of documentation. While various researchers and organisations around the globe acknowledge the importance of proper record-keeping for the auditing process and corporate governance, AGSA (2010) observes that records management is often not regarded as essential for good governance in the public sector of South Africa. Furthermore, most managers do not rank organising records highly among their priorities. Instead, it is thought to be a mundane chore with which management should not be concerned. This tedious task is often left to the discretion of the staff in charge of records management (IRMT, 1999). In addition, financial legislation, regulations, standards and the accounting manuals, which provide the foundation for designing financial management systems, tend to specify what records should be kept but not how they should be kept.

Beside the financial legislation, standards and regulations not prescribing or recommending the how part of records management, the other dilemma is that some records such as financial records, personnel records and electronic records usually fall outside the jurisdiction of the organisation's records manager. As a result, these records are not managed or controlled adequately. Ngoepe (2011) observes that in South Africa, most records are managed only during their last stage when they metamorphosed into archives and by then it is too late to control the records. Failure to manage records can lead to the build-up of unwanted records, overcrowding and disorganisation. This, in turn, will make it very difficult to retrieve and use financial records efficiently and to carry out the auditing process. In this light, it is essential that records are managed properly to enable the auditing process and risk management.

## Research Purpose and Objectives

The general purpose of this study was to investigate the role of records management into the auditing process in the public sector of South Africa with a view to entrenching the culture of clean audits. The specific objectives were to:

– Investigate the availability of records management programmes and its role to audit opinions in the public sector of South Africa.

- Investigate the relationship between internal auditing units and records management units in the public sector of South Africa.
- Investigate the management of financial records in the public sector of South Africa.

## Research Methodology

The focus of this study was on regularity of audits of governmental bodies in South Africa, which are audited by AGSA. The public sector in South Africa consists of four spheres of government, namely: national government departments, provincial government departments, municipalities, and constitutional bodies/public entities. However, statutory bodies that were not consistently audited by AGSA were excluded from this study. Equally beyond the scope of the study were other types of audits performed by AGSA such as performance audits, forensic audits and information system audits. These types of audits are not performed consistently but are done only on request or if there is a need. Therefore, an assumption is that there would be insufficient data on these types of audits as only few organisations would have been audited in this regard.

In order to investigate the role of records management into the auditing process, this study relied on both quantitative and qualitative approach, with the quantitative paradigm as the dominant design, while the qualitative paradigm was used as the less dominant design.

### Data Collection Tools

This study used a combination of data collection tools with a self-administered questionnaire as the principal instrument. Data collected via the questionnaire were supplemented through interviews. In research, the use of various methods to collect the same data for corroboration or triangulation is highly commendable. While in most surveys, the units of analysis are individuals, this was not the case in this study as governmental bodies were used as units of analysis.

### Population and Sampling

The population of this study consisted of governmental bodies in South Africa (national departments, provincial departments, municipalities and statutory bodies). AGSA's stakeholder database, which listed 283 municipalities, 37 national government departments, 108 provincial government departments in all nine provinces and 30 constitutional bodies/public entities, was used as a sampling frame. Since the population being studied was large and heterogeneous, this study used a stratified random sampling.

The population was divided into strata of municipalities, national departments, provincial departments, and public entities to ensure representation. Municipalities and provincial departments were further grouped into sub-strata according to their respective provinces. Participants from the chosen sample were selected purposively and consisted of either the records management staff member or the internal audit staff member. In some instances, especially in municipalities where there were no records managers, municipal managers were selected. The study utilised a Raosoft sample size calculator, available online to determine the sample size. A proportional sample size of 37 percent (171) was taken from the population. In other words, the sample in each stratum was taken in proportion to the size of the stratum (see table 1 for the sampling proportion). The sample constituted of 105 municipalities, 14 national departments, 40 provincial departments and 12 public entities/ statutory bodies, taking a tally to 171. Furthermore, two external auditors responsible for regularity audits in the municipalities and government departments and an executive committee member from AGSA were included in the study through the interviews. The participants from AGSA were chosen purposively.

**Table 1: Stratified proportional sampling**

| Stratum | Elements in population | Proportional sampling |
|---|---|---|
| Municipalities | 283 x (37%) | 105 |
| National departments | 37 x (37%) | 14 |
| Provincial departments | 108 x (37%) | 40 |
| Statutory bodies | 30 x (37%) | 12 |

## Data Analysis and Research Findings

This section analyses and presents the results of the data obtained via questionnaire and interviews.

### Response Rate and Participants' Profile

In this study, out of 171 copies of the questionnaire designed and distributed during February - April 2012, only 94 were returned, representing a 55 percent response rate. Copies of the questionnaire which were returned via post and e-mail were captured on free open source software that automatically produces an Excel spreadsheet. Quantitative data from the questionnaire were analysed using different analytical tools and computer software such as Excel Spreadsheet and PHstat to produce the graphs. Qualitative data from questionnaires and interview results with AGSA staff were analysed manually and used to substantiate numerical data.

As reflected in Figure 1, of the 94 copies received, 14.9 percent (14) were from national departments; 29.8 percent (28) were from provincial departments; 43.6 percent (41) were from municipalities; and 11.7 percent (11) were from statutory bodies.

**Figure 1: Responding organisations (N=94)**

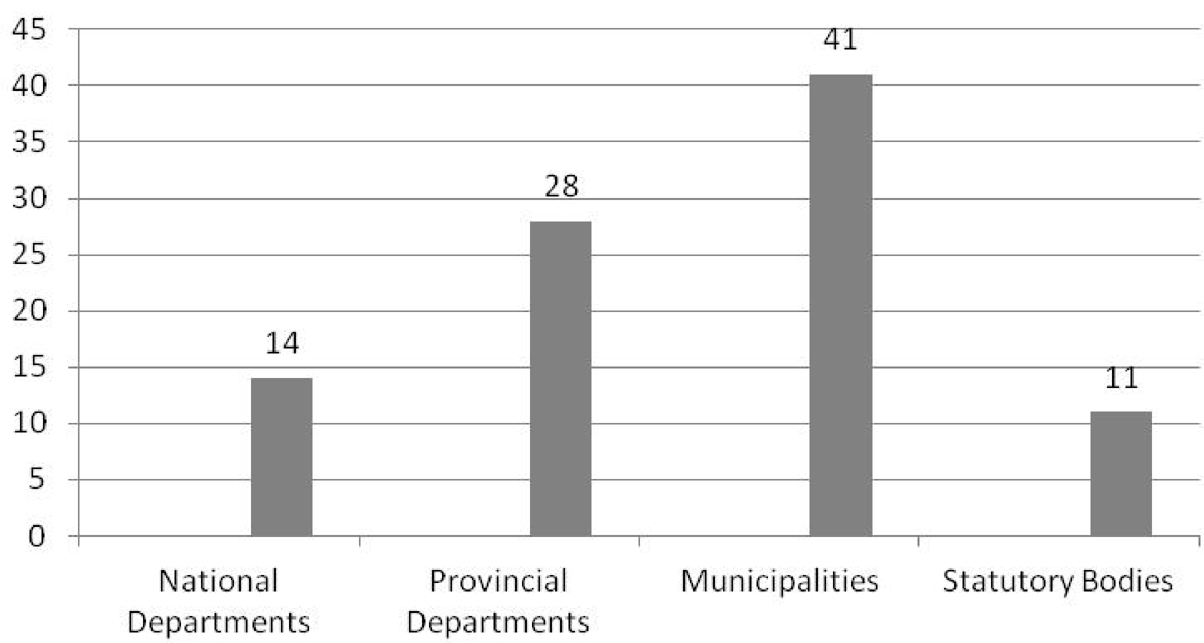
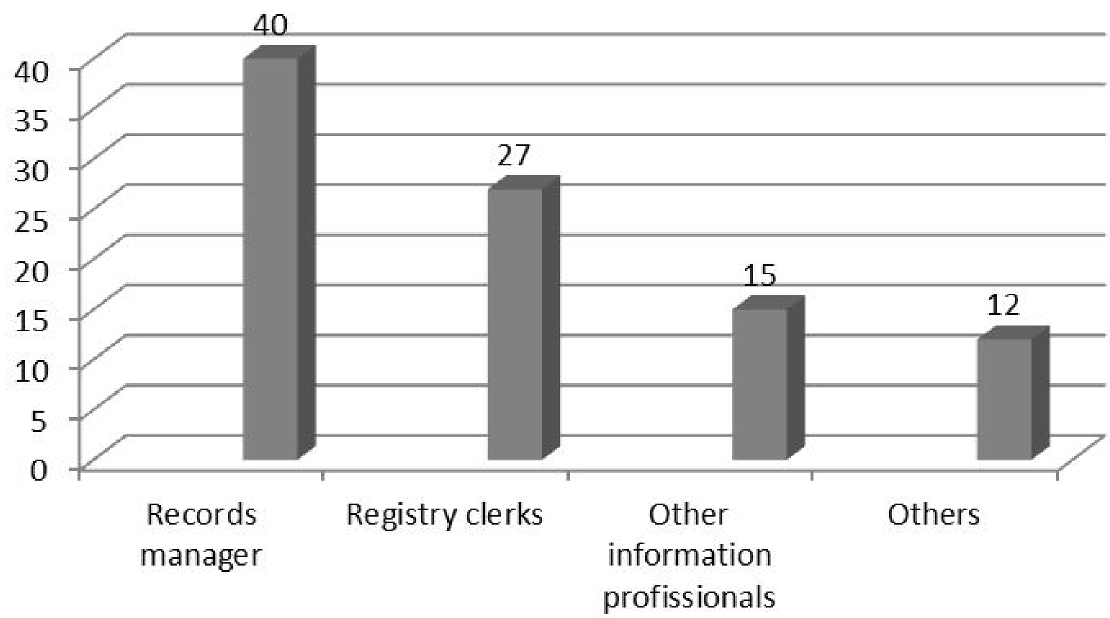


Figure 2 reflects that of the 94 responses, 42.5 percent (40) were completed by records managers; 28.7 percent (27) by registry clerks; 15.9 percent (15) by other information professionals such as librarians, knowledge managers and information technology specialists, while 12.7 percent (12) were completed by different officials such as municipal managers, risk managers and internal auditors. In some instances, the questionnaire was completed by more than one person in one institution, that is, the records manager and the internal auditor. In this regard, the records manager would complete only the section applicable to his/her section and the internal auditor would complete the part on auditing. The explanation given was that the records manager didn't have background on auditing and the internal auditors also didn't have background on records management in that organisation. Therefore, it was best for two respondents to complete the questionnaire together.

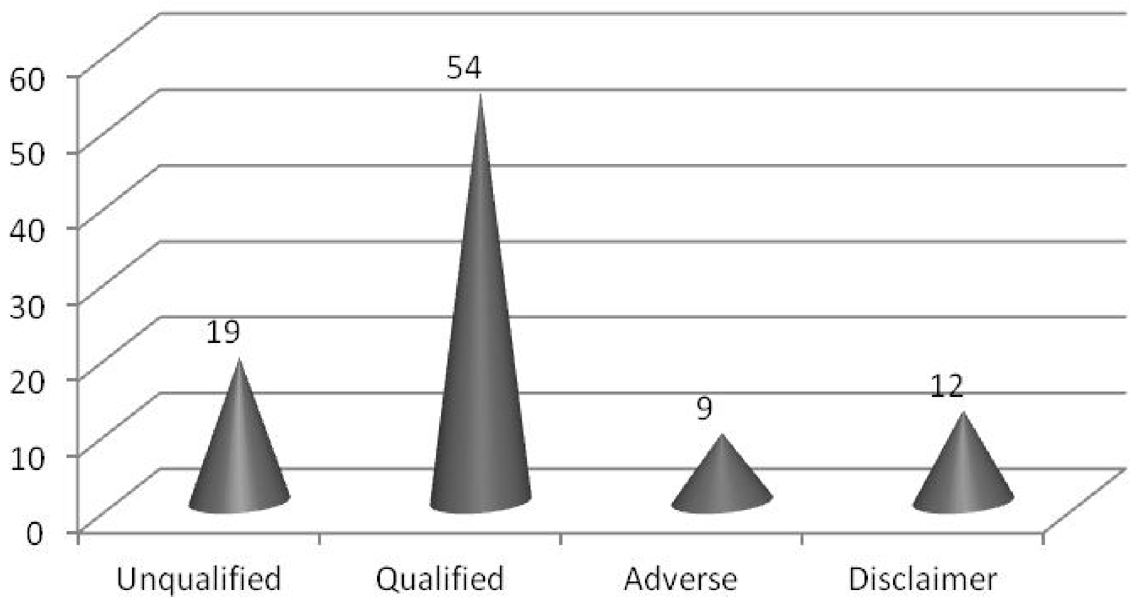
**Figure 2: Position / affiliation of the respondents (N=94)**




## The Role of Records Management in the Audit Opinion in the Public Sector of Sout Africa

Participants were asked to indicate the nature of the audit opinion obtained by their organisations in the 2009/10 financial year. As indicated in Figure 3, 20.2 percent (19) received an unqualified opinion; 57.4 percent (54) a qualified opinion; 9.6 percent (9) an adverse opinion; and 12.8 percent (12) a disclaimer.

**Figure 3: The nature of audit opinion for 2009/10 in governmental bodies (N=94)**




Respondents were asked to rate key issues that contributed to the audit opinion. As reflected in table 2, records management was ranked number six out of 10 issues, with internal controls ranking position one as the major contributor to the audit opinion. It is worth noting that as the respondents ranked the areas contributing to audit opinion, the open source software that was utilised for data analysis automatically analysed the data as reflected in table 2. Therefore, it was not possible for the researchers to provide raw scores.

**Table 2: Ranking of key contributors to audit opinion by respondents**

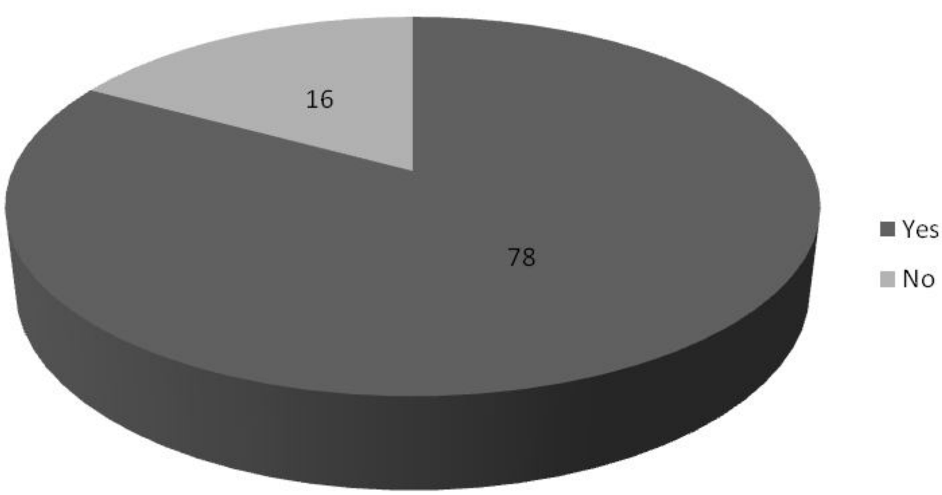
| Rank | Key contributors | Average score |
|---|---|---|
| 1 | Internal controls | 7.63% |
| 2 | Quality and timeliness of financial statements | 6.80% |
| 3 | Finance | 6.15% |
| 4 | Availability of key officials | 6.01% |
| 5 | Leadership | 5.79% |
| 6 | Records management | 5.68% |
| 7 | Supply chain management | 5.43% |
| 8 | Information Technology | 4.16% |
| 9 | Human resources | 3.80% |
| 10 | Risk management | 3.56% |

Results of interviews from AGSA indicate that the major contributor to negative audit opinions in governmental bodies was attributed to: a lack of supporting evidence (records) for financial statement items and a lack of knowledge of finance staff to properly deal with accounting issues. A respondent from AGSA indicated that an audit can only be conducted if the auditee has proper records that are available for viewing and that support the balances and transactions disclosed in the annual financial statements. According to the respondent, the records that were mostly required for the audit by AGSA include: invoices supporting expenditure, memo's/approvals of relevant officials to procure the expenditure, journal vouchers substantiating entries passed in books, trial balances and general ledger of the entity, salary advices and payment evidence.

## The Availability of Records Management Programme and its Role into the Audit Opinions

Governmental bodies in South Africa are required by archival legislation such as the National Archives and Records Service Act (Act No 43 of 1996) to establish a records management programme in conformity with standards and codes of best practice in records management. The availability of a records management unit in governmental bodies goes a long way in helping with the implementation of policies and a filing system. It is essential to manage the transactions, information and knowledge necessary to sustain an organisation. In this regard, records can be easily retrieved when requested by auditors or whoever seeks information. The purpose of this objective was to establish if governmental bodies have developed a records management programme that supports governance processes such as auditing. As reflected in Figure 4, 83 percent (78) had records management units as compared to 17 percent (16) that did not have one. Those that did not have records management units indicated that records management was the responsibility of each unit and in some cases records creators.

**Figure 4: Availability of records management units (N=94)**

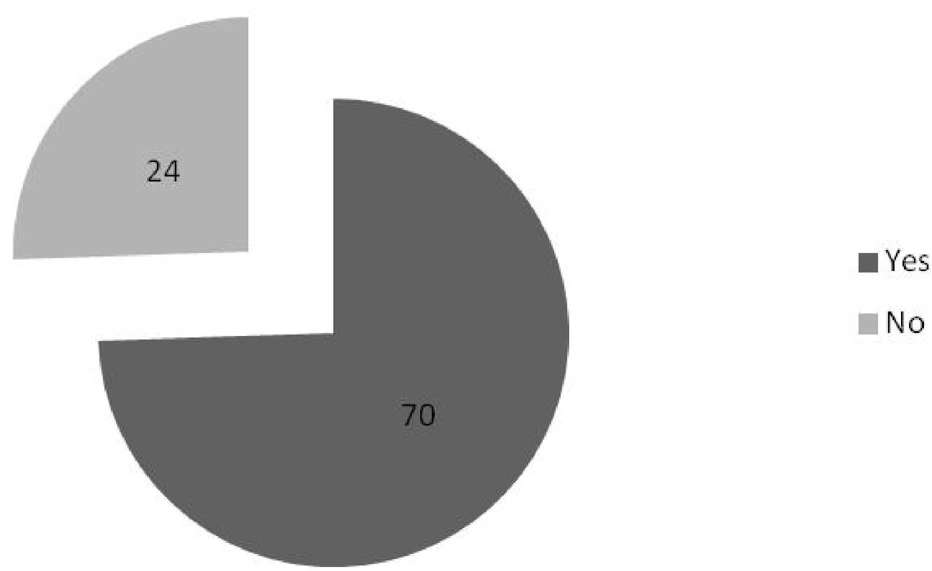


## The Relationship between Internal Auditing Unit and Records Management

Internal auditing plays an important role in any country's public sector and, in particular, in organisations' corporate governance, internal control structure, risk management and financial reporting (Janse van Rensburg and Coetzee, 2010/11). South Africa is no exception, and the role of internal auditing in the country is emphasised in financial legislation such as the Public Finance Management Act (Act No. 1 of 1999) and the King Report III on corporate governance. For example, this piece of legislation and the corporate governance model suggest that an internal audit function should be established within an entity.

As reflected in Figure 5, 74.5 percent (70) had internal audit units as compared to 25.5 percent (24) which did not have. Those that did not have an internal audit unit were mainly provincial government departments and indicated that the Premier's offices had a transversal role in internal auditing for provinces. In this regard, the internal audit unit in the Premier's Office was responsible for the entire province.

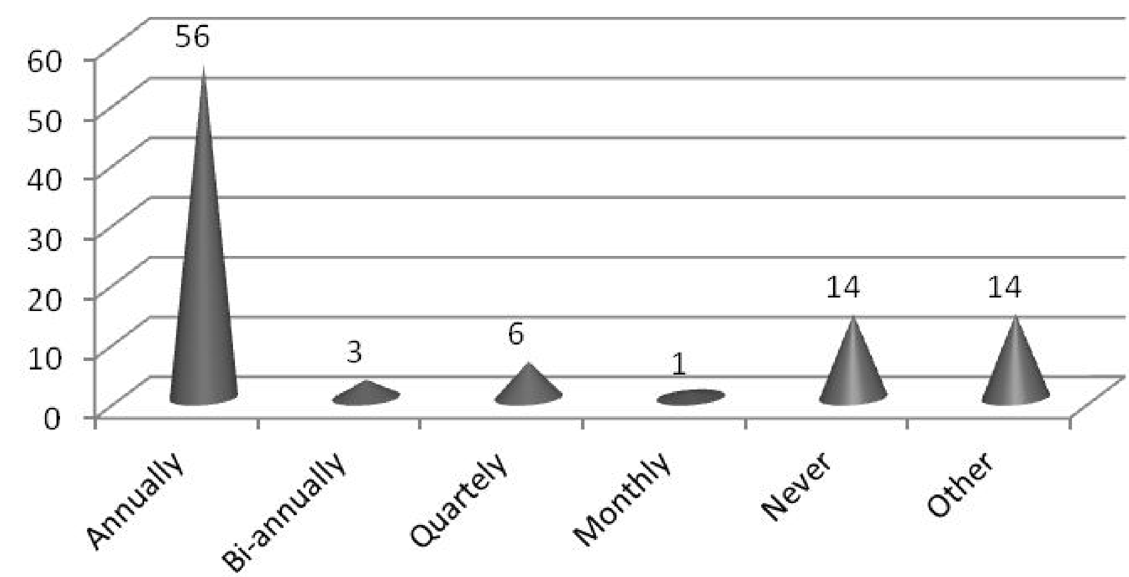
**Figure 5: Availability of internal audit function (N=94)**




With regard to the frequency of conducting internal audit reviews as reflected in Figure 6, it was revealed that most governmental bodies (56) conducted internal audits annually as compared to 6.4 percent (6) that conducted the audits quarterly and 1.1 percent (1) monthly. However, 14.9 percent (14) indicated that internal auditing was not conducted in their organisations while the other 14.9 percent (14) scheduled internal audits as per the internal audit plan and consulting engagement when requested. However, those who conducted internal audits did indicate that the recommendations of internal auditors were not always implemented. According to the respondents, most of the issues identified by internal auditors were often raised by external auditors. In other words, these issues could have been addressed before the external auditors audited the entity. However, the respondents indicated that it was not always the case. In fact, some indicated that the internal audit division was not taken as seriously as external auditors (AGSA). This is due to the fact that unlike the external audit report, the internal audit report is not by default publicly available, for example via the governmental body's website. As such, an assumption from some respondents was that senior management knew that internal audit reports were highly unlikely to be made public.

When asked to indicate how effective internal auditors and audit units were in governmental bodies, the respondents from AGSA indicated that each internal audit function was assessed separately. In this regard, some were fulfilling their mandate while others needed to improve. The respondents further indicated that although varied from entity to entity, issues identified by internal auditors in governmental bodies were not often addressed before the external auditors from AGSA conduct the audits.

**Figure 6: Frequency of conducting internal audit reviews in governmental bodies (N=94)**



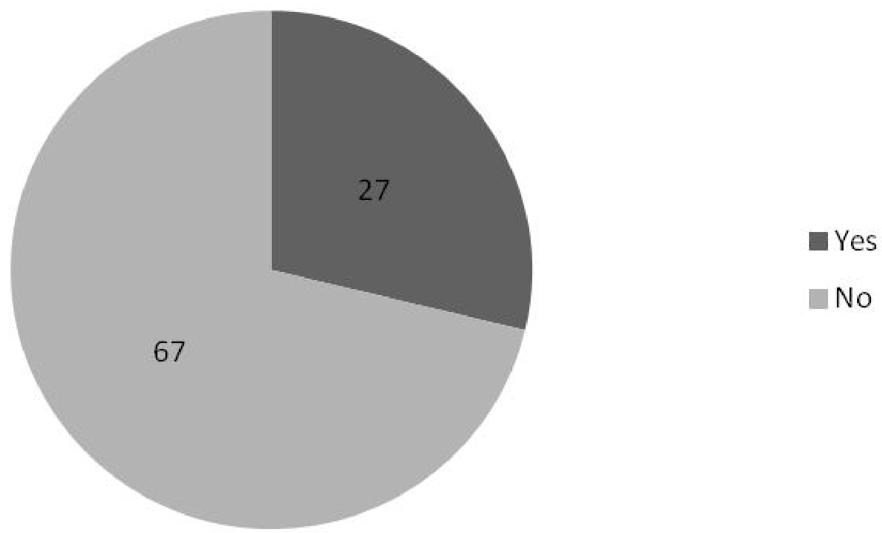

Respondents further indicated that records management and auditing did not always work in unison. The majority of respondents 72.3 percent (68) indicated that the scope of internal auditing in their organisations does not include records management. Those who indicated that records management was included in the scope of internal auditing listed the following as top five records management findings in internal auditing reviews: non-compliance with legislation, lack of information security, information loss, incomplete records, and no disaster recovery plans. With regard to external auditing, the common findings related to record-keeping in governmental bodies included the following:

- Records were not filed in a way that will allow for easy reference; hence it takes longer than necessary to retrieve.
- Records filed were not always a complete set of documents that substantiates the transactions (for example, the pack of records requested for one invoice payment contains all the invoices and quotes but the approval page is missing).

## The Management of Financial Records in the Public Sector of South Africa

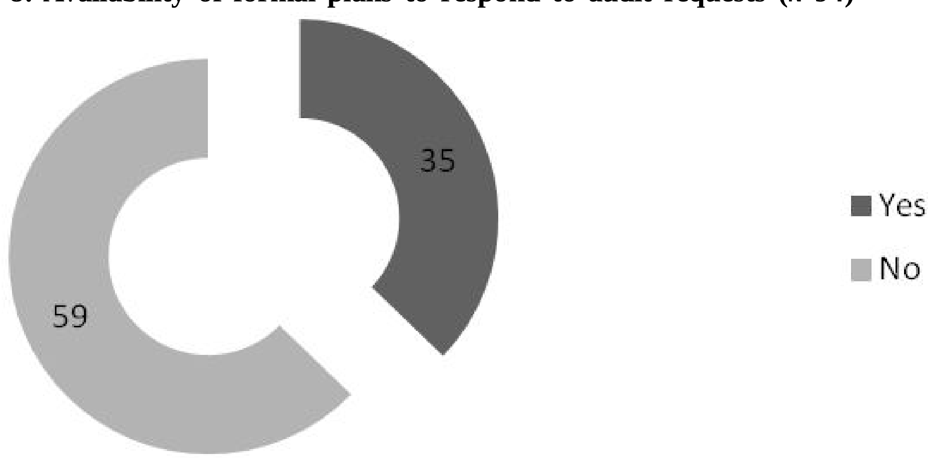
According to ANAO (2006), records need to be described so that people know what they are about, understand their context and purpose, and can find them easily when they need to. When asked who managed financial records in governmental bodies, 71.3 percent (67) as reflected in figure 7 indicated that the records management units did not have control of financial records. The respondents indicated that financial records were managed by the finance section. These records were transferred to central records only when they were semi-active. In this regard, that was the only time when records management has control of financial records. However, the respondent from AGSA indicated that both records management staff and the finance section assisted the auditors with records during the audit cycle in governmental bodies.

**Figure 7: Control of financial records by records management units (N=94)**




Eighty-one percent (77) indicated that internal and external auditors did complain that they were unable to obtain source documents within a reasonable time, resulting in disclaimer opinions. As reflected in figure 8, only 37.2 percent (35) indicated that their organisations had a formal plan to respond to audit requests. Interviews with AGSA staff members also confirmed that, in a few instances, the auditees had a formal plan to respond to audit requests for records. However, most auditees that were qualified did not have adequate action plans for issues raised in previous reports. The tendency was to prepare the full set of accounts at the end of the year, resulting in what Ngoepe and Van der Walt (2009) call "pillar to post syndrome" due to lack of mechanism to retrieve records. One respondent even indicated that during the audit cycle, officials run around like "headless chickens" in an attempt to retrieve records requested by auditors without success. This was due to the fact that records were not managed properly in governmental bodies. In some instance, files were either incomplete or missing. It is saddening to note that records management professionals did not even get the copy of the report, as most indicated that they read about the audit results of their governmental bodies in the media.

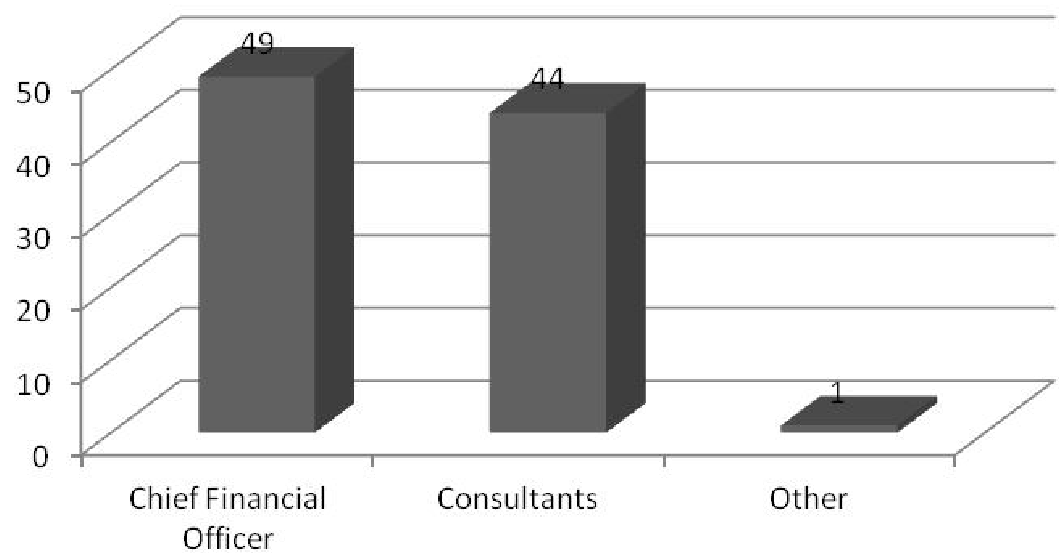
**Figure 8: Availability of formal plans to respond to audit requests (N=94)**



## Responsibility for Preparation of Financial Statements

Financial legislation such as the Public Finance Management Act (Act No. 1 of 1999) requires accounting officers of governmental bodies to prepare financial statement for each financial year and submit these to AG for auditing within two months after the end of financial year. As reflected in figure 9, the responsibility of preparing financial statements in 49 (52.1%) governmental bodies lied with the chief financial officers and in most cases (46.8%), especially in municipalities, the compilation of financial statements was outsourced to consultants. However, only 1.1 percent (1) indicated that the responsibility lied with the head of department.

**Figure 9: Responsibility for preparing financial statements (N=94)**




Eighty-five per cent (80) indicated that financial statements were always prepared in time. The other 15 percent (14) indicated that the financial statements were not always prepared in time due to unavailability of records. AGSA respondents also indicated that the submission of financial statements varied from entity to entity with some not submitting, others submitting late, others submitting incomplete statements, and others submitting on time. Some respondents expressed concerns that outsourcing the compilation of financial statements to consultants did not always benefit their organisations, as there were no skills transfer. As well, more money was spent on consultants in this regard. However, some respondents commended the consultants on the work done by them in compiling financial statements and even attributed the improvement of audit outcomes to the use of consultants. Either way, the use of consultants or in-house staff has pros and cons as outlined in table 3 (Katuu, 2007).

**Table 3: Using consultants versus in-house staff**

| Consultants | In-house staff |
|---|---|
| **Pros** | **Cons** |
| Have experience | May not have experience |
| Have all their time allocated to the project | May not have all their time allocated to the project |
| Can be held totally accountable | Difficult to hold accountable |
| **Cons** | **Pros** |
| May not initially understand the organisational culture, vision and mission | Immediately understand the organisation culture, vision and mission |
| May be very expensive | Very cost-effective |
| May not engage in knowledge and skill transfer | Development of organisational skills and knowledge |

The periods of completing an audit as indicated by the respondents ranged from one month to 10 months. According to the respondents, the duration of the period was mainly influenced by the availability of records, financial statements being submitted late and unavailability of key individuals during the audit cycle. However, there were those who indicated that auditing was not done due to non-submission of financial statements to AGSA. Taking into consideration the auditing process (planning/interim and final phase), the respondents from AGSA indicated that the cycle to complete PFMA/MFMA audits can take about five months. Mostly, according to the respondents, the duration of the audit is determined by the amount of data that have to be audited. However, late submission of financial statements and records also has a major impact.

## Discussion

The results clearly indicate that governmental bodies in South Africa were characterised by negative audit results. This is evidenced by the fact that only 19 organisations out of 94 received unqualified audits during the 2009/10 financial year. Even though not the only enabler, it has been established in this study that records management was one of the contributing factors to the audit results.

The results of the study revealed that most governmental bodies (70%), especially national government departments, municipalities and statutory bodies have established internal audit units. It would seem that the establishment of internal audit functions in most governmental bodies was just for ceremonial and compliance purposes. Even though it has been discovered that most governmental bodies have established internal audit units, the public sector in South Africa continues to obtain unclean audit results. This is in part due to the fact that internal audits were not frequently conducted in governmental bodies. In the cases where internal audits were conducted, follow-ups or remedial actions to the reports were not done. An assumption is that follow-ups were not done, as internal audit reports were not made public and therefore management did not worry about such reports as members of the public would not have access to them (reports). In most governmental bodies, records management did not form part of the internal audit scope, hence many record-keeping issues were identified by external auditors at a later stage. As well, many governmental bodies did not have plans to respond to audit queries. The study found that governmental bodies were characterised by the late closing of accounts, poor internal controls, incomplete and inaccurate records that lead to unclean audit results. On contrary, in a study by Isa (2009), it was found that organisations with an internal audit division and proper records management programme always produce clean audit results. However, the setting was different as Isa's study was conducted in Europe.

On a positive note, it has been discovered that most governmental bodies in South Africa had established records management programmes. However, despite this, governmental bodies continued to receive unclean audit opinions from AGSA. This is in part due to the fact that records management programmes were established for just compliance purpose with archival legislation. It is clear from the results that records management units in governmental bodies did not have control over financial records. These records fell beyond the scope of records management and were managed by finance sections. Records management units became involved when records were semi-active. Involvement of records management units at a later stage when records are semi-active is not good for both administrative and historical value, as records might not be arranged properly by the creating divisions. Therefore, retrieval at a later stage could be a challenge. Furthermore, records of enduring value could not be identified at an early stage. This is in opposite to the call by Duranti (2012) that records managers should position themselves at the beginning of the record life-cycle, taking the role of “designated” trusted custodian and assess the authenticity of the records and monitor them throughout their existence. This will help records management practitioners to identify the records in systems containing different kinds of information, and, if records do not exist, but should exist, collaborate with the creator in addressing the issue. As a result, when the audit cycle comes, records will be available and arranged in an orderly manner for easy retrieval. The management of financial records by finance sections cannot be considered adequate, as officials from those sections might not have records management skills or time at their disposal as they have financial work to do.

The results of the study indicate that governmental bodies, especially municipalities, relied on consultants to prepare year-end financial statements despite employing people for this purpose. Owing to this, governmental bodies incurred more costs. Lack of technical financial skills seemed to be the root cause of using consultants. In some instances, governmental bodies submitted financial statements late or not at all. This is as a result of a lack of supporting documentation when financial statements are prepared. In some instances, audits were not done due to non-submission of financial statements.

## Conclusion and Recommendations

This study identified poor record-keeping as one of the contributing factors to negative audit results. While the direct and the indirect links between record-keeping and auditing were found, records management was still not being taken seriously in governmental bodies as in most cases it was not utilised to support auditing. Concentration on the financial side neglecting other areas of governance such as records management will not result in the desired result of improving audit outcomes and sustaining the outcomes. Therefore, resolving the majority of audit outcomes is not a complex issue, but requires dedicated cadres, commitment of leadership and realising that most of the challenges are basic, like the implementation of proper records management.

Records management practitioners should consider working together with other disciplines. The important putative ally for records management in this regard is internal audit. This alliance can be a surprise package of mega proportions which will put records management on a path of no return. Co-operation among relevant professions, such as records managers and archivists, accountants, auditors, and legislators, will enable common problems to be approached from different aspects. The synergy can steer records management into new and unchartered territory, as well as catapulting it into limelight in the public sector. Auditing offers records management practitioners the opportunity not to be missed to propel records management to the new heights. However, Willis (2005) chastises that seldom do other professions think to involve records professionals in planning and decisions of their activities. IRMT (1999) identifies a need to pool expertise from different professions if the problems of accountability, transparency and good governance are to be solved.

Undoubtedly, it is clear from the study that a road to successfully implementing the records management programme that will enable the auditing process is not an overnight journey. Therefore, the sooner governmental bodies start, the better as a ‘journey of 1000 miles begins with one step’. It is evident that governmental bodies in South Africa still have a long road ahead towards achieving clean administration. Until such time that records management function is recognised by public officials and senior civil servants as a management issue, it will not be possible to enforce compliance with record-keeping requirements and establish the necessary culture for creating, maintaining and using records.

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[1] **List of six good practice indicators for governmental bodies to achieve clean audit results**

- A clear trail of supporting documentation (records management);
- Quality of financial statements and management information;
- Timeliness of financial statements and management information;
- Availability of key officials during audits;
- Development of, and compliance with, risk management and good internal control practices; and
- Leadership, supervision and monitoring.

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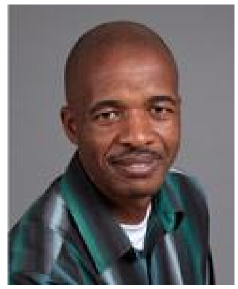

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# Preservation Risk Assessment Survey of the University of Botswana Library

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## Abstract

*Libraries and archives are tasked with the responsibility of providing access of information to the public and stakeholders in the present and future years to come. This can be achieved through various strategies which fall in the realm of preservation management. Among others, these include adapting to risk management approaches. In that regard, towards the beginning of the year 2013 the University of Botswana Library Conservator was tasked with the responsibility to conduct a preservation risk assessment in order to address deterioration issues of collections in the university library. This article sought to report the findings on the preservation risk assessment and recommendations on the strategy for improvement. Data for the risk assessment was collected using a structured preservation assessment survey. Findings of the assessment indicated that while most challenges in preservation included shortage of finance, shortage of staff and equipment, most risks observed were due to unavailability of guidelines and policies. These risks were classified as risks influenced by operational and reputational procedures.*

**Keywords:** Preservation, risk assessment survey, University of Botswana library

## Introduction

Libraries and archives are tasked with the responsibility of providing access of information to the public and stakeholders in the present and future years to come (Segaetsho and Mnjama, 2012). This can be achieved through various strategies which fall in the realm of preservation management activities. Preservation is a pervasive function that should be present in all library and archives activities, right from acquisition through to access. It is a holistic approach that treats not only the symptoms of deterioration in materials, but it also tries to mitigate their effects. Millar and Roper (1999) discussed preservation as a primary responsibility of elongating life span of collections through the use of different cost effective managerial activities. Harvey (1994) further discussed preservation as the managerial and financial activities encompassing policy frameworks, security to collections, storage management, care and handling, pest and mould control, disaster management and environmental considerations. In order for libraries and archives to achieve these endeavours of preservation of collections, they use different strategies among which include conservation survey and preservation risk assessment surveys. Bulow (2010) asserted that from the past few decades, enormous innovative strategies in information technology have culminated into different challenges which have forced the National Archives in the UK to adapt new ways of preservation strategies. These include adapting to risk management approaches. Bulow (2009) further opined that risks managements procedures are strategic drivers for large archives.

Crouch and Wilson (1982), Moore (1983) and Suokas and Rouhiainen (1993) defined risks as the possibilities of undesirable changes occurring. They further elaborated that risk assessment would then be defined as the analysis of the magnitude of all risks affecting some entity. It is the application of available resources in a way that minimises the overall risks. Waller (2003) went on to categorise risks into three major types, namely 1) catastrophic; disastrous sudden damages like earthquakes, volcanic eruptions, etc. 2) sporadic and severe risks like burst water pipes, a truck of overloading river sand causing sudden dust, etc, and 3) continuous/ongoing risks like incorrect temperature and relative humidity. Literature indicates that there are many different methods of carrying out preservation risk assessment. Methods used in assessment are chosen mainly depending on the aims of the assessment itself, whether it addresses conservation needs, a certain particular set of risks, or specific collection within an institution or organisation (Waller, 2003). Common methods include benchmarking and prioritising on risks, using British standard 5454 (2000) method as outlined in the standard and Waller method which uses mathematical approach of calculating magnitude of risks (Waller, 2003). Bulow (2010) views the British standard as a better method mainly for considering conditions of collections but does not attempt to identify the causes of damage.

Despite few limitations on risk assessments, the importance of carrying out preservation risk assessment has been well elaborated in literature (Waller, 2003; Bulow, 2010). Risk assessments are the paramount determinants of quantitative or qualitative value of risk related to a concrete situation and a recognised threat. It is therefore important that risk assessment strategies be anchored on in order to evaluate assumptions and uncertainties on preservation of collections.

## Preservation issues in Libraries and Archives

The challenges of preservation management are increasing, spreading across the world as the major concerns in the operations of libraries and archives. Ngulube (2005), Kootshabe (2011) and Segaetsho and Mnjama (2012) observed different initiatives and challenges that cut across libraries and archives internationally, regionally and locally. They observed that libraries and archives, more particularly in Africa, are highly overwhelmed by lack of knowledgeable staff and unavailability of policies or guidelines. Ngulube (2005) further observed that there is lack of research publication on the topics of preservation and conservation, more especially in Africa. In agreement with Ngulube, Kootshabe (2011) and Sekiete (2011) also noted that there are very few studies that have been conducted on preservation of libraries and archives in Africa. Libraries and archives are also internationally challenged by inappropriateness of building materials for storages (Sung et al. 2012). Another issue that emerges from the reviewed literature is that external climate changes do have significant influences on storage conditions of libraries and archives (Jack Chen et al. 2010). The inappropriate storage conditions have been observed to be causing significantly high fluctuations on temperatures and relative humidity in libraries and archives' buildings. Furthermore, despite different newer challenges on preservation activities, the classical issues of shortage of finance, shortage of skills, knowledge and education and shortage of equipment are still a challenge in many countries worldwide.

Sekiete (2011) observed that libraries and archives in Tanzania were challenged by different issues including inappropriate acquisition and collection development measures, irrelevant building structures and maintenance, and poor preservation and conservation procedures. Similarly, the University of Botswana Library has been observing deterioration effects in most of its collections both in open shelves and the special collections areas. The Special Collection Unit, which is considerably new, has been challenged by different preservation issues (Segaetsho and Mnjama, 2012). In that regard, towards the beginning of the year 2013, the UB Library Conservator was tasked with the responsibility to conduct a preservation risk assessment survey in order to address the deterioration issues of collections in the UB Library. Therefore, this paper presents the findings and recommendations of the conducted preservation risk assessment survey held at the UB Library. The major project objectives of the preservation risk assessment survey are discussed below.

### Assessment Objectives

The overall objective of the risk assessment was to determine collections' risks observed at the University of Botswana (UB) Library and make recommendations on aspects of improvement required to keep collections more stable, strong and durable for a longer period of time. The assessment activity sought to determine issues that influenced deterioration of the UB Library collections. The assessment approach was focused on the following objectives to:

- to identify all risks to collections in UB Library main campus
- to assess the frequency and magnitude of risks to collections in UB Library
- to determine the sources or causes and influences associated to the risks
- to identify the possible strategies that can be used to mitigate the risks to collections.

### Assessment Questions

The risk assessment questions that were addressed are:

1. What are the collections risks at the UB-library?
2. At what levels of affection, frequency or magnitude do the risks affect collections?
3. What are the sources and influences associated to collections?
4. What are the possible strategies that can be used to mitigate or minimise risks to collections?

### Scope and Limitations

This preservation risk assessment survey was limited to the University of Botswana Library main campus located in Gaborone, Botswana. The assessment was carried out over a period of six months between January and June, 2013. Owing to to the limited time and shortage of staff, the study did not include other branch libraries at Faculty of Engineering and Technology (FET), the Centre for Continuing Education (CCE) and the Okavango Research Institute (ORI). However, recommendations from the findings could be applicable to the other library branches and elsewhere.

## Methodology

There are different research methods adopted by different researchers. The nature of the choice of the research methodology is dependent upon the nature of the research questions (Saunders, Lewis and Thorthhill, 2012). This preservation risk assessment was aimed at identifying major risks that could be culminating into deterioration of collections. Therefore, data collection of this assessment was conducted using a preservation risk assessment survey. The survey employed an exploratory and descriptive risk assessment anchored on Waller (2003) method. However, mathematical approach of calculating magnitude of risks by Waller (2003) was not adopted due to unavailability of some statistical data on preservation. The study was anchored on experience and structured personal observations as the data collection tool in order to determine risks, preservation practices, methods and levels of affection, frequency or magnitude of risks. A review of pertinent literature on preservation was also undertaken to guide identification of major risks to be observed in the library area. Where necessary, the survey also consulted relevant professionals for clarification on risks. Preliminary findings of the risk assessment were presented to Special Collection staff and recommendations in the findings were approved for implementation by the Special Collection Manager as the way forward for improvement. In overall, the risk assessment obtained both quantitative and qualitative information. This allowed statistical and textual gathering of detailed data with good reliability on instrumentation (Saunders, Lewis and Thorthhill, 2012). Detailed discussions on finding from the methodological steps of the risk assessment are discussed below under results and discussion section.

## Results and Discussions

The University of Botswana Library houses different types of collections. All these collections are not stored according to their type of media or under specific condition. The major distinction on location and condition is that the Special Collections Unit maintains lower temperatures and relative humidities whereas the other floors in the open shelves do not. Open shelves consist of 7 locational sections including learning common, circulation services, 1st floor, 2nd floor, 3rd floor, upper ground and the mezzanine floor which holds periodicals (University of Botswana, 2012). In consideration of the library setup and volume of collections, it was necessary to choose an assessment method that would appropriately address the two major sections' needs. The results of the assessment on the study objectives were as follows:

### Assessment Objective One: Identification of Risks and Their Causes

The survey started by identifying a list of major risks to collections using experience, observation and documentation. These risks were then grouped into 14 categories depending on their impact, interrelation and causes. Similar assessment method was also employed at the National Archives in the UK (Bulow, 2010).

## Risk Category 1: Policies

*Non-existence of policies:* The Special Collection, (consisting of Legal Deposit, Archives and Preservation Sub-Units), has policies which work hand in hand with the other library open shelve policies. The assessment indicated that preservation policies were in place. In the same view with Segaetsho and Mnjama (2012), the questions that still need to be addressed are the extent to which the policies are implemented. The assessment indicated that policies were in place but the policies were not critically followed or implemented. For example, the assessment indicated that despite the fact that the policy clearly indicates that pens should not be used during access to collections, customers were using pens in the reading rooms.

*Policies which do not address necessary preservation needs*: An issue to bear in mind was that preservation and conservation work is a specialist professional work which is mainly established to support the establishment of access of information for the present and future (The National Archives Act 1968). Therefore, its operations are mainly in the form of projects. However, it was not clear how the library integrates the operations of librarian profession with other professions.

## Risk Category 2: Managerial Work Budget

Consultation with the Special Collections manager revealed that the University of Botswana is a government – sponsored university depending mostly on funds from the government and its stakeholders. The library gets its funding from the university budget allocation to departments. The Manager revealed that Special Collections Unit gets little or sometimes nothing on allocation for preservation and conservation establishment. This was perceived as a major cause of slowdown in achieving basic needs of preservation work. Kootshabe (2011) and Selatolo (2012) similarly posited that it is important that the preservation and conservation sections be allocated budget for purchasing of equipment needed for preservation and conservation work.

*Staffing:* The library had a large number of staff compliment of about 160 staff, and 92 staff were already in post (University of Botswana, 2012). The Special Collections Unit has about 8 members of staff with Preservation and Conservation sub-unit consisting of only two staff, and this suggested a challenge of shortage of staff. In agreement to this challenge, Kootshabe (2011) and Segaetsho and Mnjama (2012) also observed shortage of knowledgeable staff as the major challenges faced by libraries and archives in Botswana. Serious training for staff in preservation management, conservation and book binding is necessary in order for the library to improve on its preservation work.

## Risk Category 3: Environmental Conditions

Temperature and Relative Humidity (RH) has been previously monitored since 2005/2006 up to September 2009 when the then trainee conservator went for studies (Segaetsho and Mnjama, 2012). Document review of Segaetsho and Mnjama's (2012) findings indicated that by then there were reasonable fluctuations in temperature and relative humidity. During the course of the assessment, it was found that environmental monitoring, spot checks, fluctuation and data analysis were no longer done due to unavailability of instrumentation. The library does have a heating, ventilating and air conditioning (HVAC) systems. The barrier to implementation of environmental monitoring was shortage of instrumentation.

*Audio visual materials*: The assessment indicated that there were no specific rooms for storing and monitoring temperature and relative humidity for audio visuals. In future, cold room would be necessary in order to minimise deterioration rate of these collections.

## Risk Category 4: Housekeeping

*Dust*: The level of dust within the library was not known. There were no measures in place to monitor the level of accumulation of dust.

*Tidiness:* The library cleaning is done by an outsourced company, and a person responsible for managing and organising the cleaning company is a manager in Circulation and Extension Services (C&ES). The survey has shown that there were no specific cleaning strategy in place, but the Conservator was lately tasked with drafting guidelines on housekeeping. The Conservator also organises workshops on cleaning procedures to the library staff and the outsourced cleaning company staff. The assessment indicated that there was no consistent method or data for gauging and analysing cleanliness of the library building.

### Risk Category 5: Pests Food in the Library

An assessment indicated that there was no strategic pest management system in place. However, pesticides have been used for some time but there was no monitoring and analysis on the effectiveness of the pesticides. Food and eating was allowed in certain places within the library. Staff members can carry food and eat in their offices even though an attempt has been made by Special Collections Unit to stop eating in offices. Similar observations were also opined by Segaetsho and Mnjama (2012). The library sometimes experiences leakages in drainage pipes and uncontrollable environmental conditions which can attract pest infestation.

*Integrated Pest Management System:* It was not clear who is responsible for organising fumigation and outsourcing of pesticides supplies; the pesticides in place were supplied by an outsourced specialist company. There were no guidelines of specifications on pesticides to be used but the assessment indicated presence of different pests in the building (figure 1). Dangers that can be caused by the pesticides used and their expiry dates were not known. Physical observation during the survey showed a number of pests at places with pesticides. The extent of damages caused by pesticides was not well understood and the major causes of pests were not known. Similar views were also expressed by Segaetsho and Mnjama (2012).

**Figure 1: One of the pests observable in the building**

### Risk Category 6: Light Length of Exposure

The library is open most hours a day, but most books are closed in shelves. This minimises exposure to content text. The time on which light might contribute to deterioration is during reading time in the library and at home during loaning periods.

*Strength of light:* Exposure to ultraviolet (UV) can cause fading to collection (Balloffet and Hille 2005). The library should always use bulbs with less lux.

### Risk Category 7: Mould Leakage

The assessment indicated that challenges that have to be monitored are due to handling by customers during loaning time and leakages in the library that might cause dump areas.

### Risk Category 8: Care and Handling Shelving

The Special Collection Unit which concurs on preservation was mostly affected by poor shelving as shown in figure 2. Consultations from Special Collections staff indicated that introduction of mobile shelves/compact shelves has brought protection from fire, flooding, etc, but has also brought a challenge of falling collection during accession. Because of frequent usage of the collections, spiral bound theses and weak binding to certain reference materials collection were highly in danger. Other sections of the library had minor challenges of shelving which can be easily addressed.

*Customer handling*: The library was not doing any measures to analyse deterioration done by customers. Tears, missing pages, staining and acidification due to handling by customers were not monitored. Book binding were outsourced to private companies.

*Staff handling:* An assessment indicated that some risks could be due to shelving process and handling during processing stages. The extent of damage was not yet understood. Staining by tea in offices could also be a threat but this needed to be investigated further.

**Figure 2: Some of improper shelving in Special Collections area**

## Risk Category 9: Manufacturing Process Lignin Presence

Special Collections Unit anchors on acquiring collections of all publications in Botswana (University of Botswana, 2012). Among others, these include a collection of newspapers. Newspapers are mainly lignin containing cellulose fibers (Balloffet and Hille, 2005). Lignin content was not tested and monitored in these collections.

*Binding:* An assessment indicated that some bound newspaper materials were repaired with inappropriate materials like pressure sensitive tapes (silo tapes).

*Alum rosin:* The assessment indicated that it was difficult to monitor all published books, journals, etc, on their paper content. However, random sampling and testing on paper content was necessary to monitor paper acidity more especial on Tshekedi collections which contain 18th and 19th century collection. The extent of deterioration on this collection was not known.

## Risk Category 10: Particulates and Air Pollution Sooth, Particulate Dust, etc.

Sooth due to external burning was not perceived as a major threat since there had not been fire in the past especially nearer to the library building. The assessment indicated that this could be a threat in open shelves collections since the books are loaned to the outside environment. The impact of air pollution and particulates can significantly be dangerous to collections (Balloffet and Hille, 2005).

## Risk Category 11: Reprographics Related Risks Photocopying

Open shelves materials were not restricted to photocopying. During photocopying process, literature indicates that damages expected are mostly to binding and tearing of collections (Harvey, 1994). The extent of damage caused by photocopying was not well understood in this assessment. Special Collections materials were always under monitoring, therefore the Special Collections' Conservator was of the view that this should be at a minimal rate if at all it does occur.

*Scanning:* A new project on digitisation has started. Challenges on damaging binding, unbinding, tears, etc, were not yet understood. It needs further investigations.

## Risk Category 12: Access and Security

The UB library had a security system in place to help in maintaining order in the reading rooms in the Special Collections and the entire library sections. The security has been well familiar with rules and regulation required by library in general. The assessment indicated that the library building has window locks, alarmed doors and security guards. Security systems have the responsibility to check the building on daily basis after closure times. However, collections check has not been done in order to identify missing collections.

### Risk Category 13: The Building Materials, Fabrics, etc.

The library building was a purpose built building meeting most of the specification required for preservation (Segaetsho and Mnjama, 2012). The building was mainly made of metal/steel, concrete and plastic contacting materials. The materials used for construction should be generally durable and strong (Balloffet and Hille, 2005). There was no evidence of threat observed on gaseous emissions. However, the extent of gas emission needed to be interrogated.

*Maintenance:* Assessment of the building indicated that the building was generally still in good condition but few cracks were observable on certain parts of the building structure. The assessment also indicated that there was no critical survey on the building conditions done on frequent bases. This study concurs with Henderson (2013) who posited that it is advisable to have selected personnel responsible for building survey.

### Risk Category 14: Disastrous Risks

*Catastrophic (floods, earthquakes, volcano, etc*): The library building had emergency exit but their functionality was not well monitored. Sprinklers were installed as a fire suppression system and the detection system was regularly maintained and tested once in a year. Pressure water fire extinguishers were also available on all floors and in most offices.

*Sporadic and severe risks:* External threats or risks to bear in mind were sporadic risks. These were risks like overnight bust of pipes which can result into rapid increase in relative humidity causing mould (Swartzburg, 1995). The Special Collections staff opined that pipe busting and leakages frequently observed suggested that it could be likely that in the future this might damage collections in archival storage rooms.

### Assessment Objective Two: What Levels of Affection, Frequency or Magnitude do the Risks affect Collections?

The risk assessment survey also anchored on understanding the levels of affection and frequency or magnitude at which the risks could occur. In order to ascertain on this, the assessment adopted a similar method to Waller's (2003) in order to get a clear picture on the frequency on the possibilities of risks occurring. The method involved classifying risk on their consistencies, sporadic and severity as shown in table 1. The table 1 was then used to allocate numbers on every category of the identified risks.

**Table 1: Ranging of frequency of occurrence versus severity of risk**

| | Constant | Sporadic | Rare |
|---|---|---|---|
| **Catastrophic** | 1 | 2 | 3 |
| **Severe** | 4 | 5 | 6 |
| **Continuous/ongoing risk** | 7 | 8 | 9 |

1 = Risk classified as constant and catastrophic

2 = Risk classified as sporadic and catastrophic risk

3 = Risk classified as rare but catastrophic risk

4 = Risk classified as constant but severe risk

5 = Risk classified as severe and sporadic risk

6 = Risk classified as rare and severe risk

7 = Risk classified as constant and continuous risk

8 = Risk classified as sporadic and continuous risk

9 = Risk classified as rare and continuous risk

During the assessment survey it was noted that the library had nothing in place to monitor and analyse the level of risks. The assessment showed that it is difficult or rather premature to prioritise risks according to their levels of impact to collections. Prioritising risks would have required an intense analysis of deterioration in the collections themselves, then classifying deterioration according to their causes and later identifying the risks associated with those collections. Therefore, summative results were presented depending on issues of location, influences associated to risks, and ranging of frequency of occurrence versus severity of risk. The results showed that ranging of frequency of occurrence versus severity of risk; the risks were mainly continuous/ongoing and constant (see table 2). This suggested that the risks could be minimised through setting specific conditions and monitoring of risks. The results also showed that for those risks which were continuous and constant major influences of the risks were operational and reputational influences. It was also evident that the risks were most likely to affect both sections of the library. The assessment also noted that some risks were severe or catastrophic but very rare. In such cases, disaster management is the appropriate method for addressing those risks (Bulow 2010).

The risks were also classified into their likelihood of existence, whether the risks were more likely to happen in the Open Shelves area (upper ground, 1st floor, 2nd floor, 3rd floor, Circulation desk/ learning commons or periodicals) or in Special Collections area. No distinctive disparities on locational influences were observed.

### Assessment Objective Three: Sources or Causes and Influences Associated to the Risks

Four major deterioration influences were identified and classified as **(**1) financial influence, (2) managerial/operational influences (e.g), (. poor management 3) reputational influences (e.g. poor customer service), and (4) legal obligations (e.g. cop rights) (Bulow, 2010). Waller (2003) posited that in many cases deterioration effects which are due to reputational behaviour are more likely to be reduced at less costs. Analysis in this assessment also indicated that most of influences associated to risks were mainly due to operational and reputational influence as shown below in figure 1. The assessment showed that 43.5% of risks were influenced by poor operation of the University Library whiles 34.8% of the risks were mainly influenced by the reputation of the library. Only 13% of the risks might be occurring due to influence of financial obligations. Financial obligations were mainly perceived to be influencing deterioration mostly under environmental conditions, building and managerial aspects. These are due to the fact that it is highly expensive to instal heating, ventilating and air conditioning (HVAC) systems for monitoring temperature and relative humidity. Similar observations of challenges of finances have been also observed in other libraries and archives locally, regionally and internationally (Kootshabe, 2011; Sekiete, 2011; and Selatolo, 2012). This was observed as the major barrier on preservation efforts even though it has less influence on many risks. Similarly, hiring and training staff on specialist courses in preservation and conservation is expensive. This should be classified as long-term preservation needs which require commitment and funding. Ngulube (2005) also opined that most of preservation work in libraries and archives suffers from lack of commitment and funding.

**Table 2: Preservation Risk at UB-library Main Campus**

| Categories of Risk | Associated Causes | Ranging of Frequency of Occurrence versus Severity of Risk | Location of the Collection to be More Likely Affected by the Risk | Influence Associated with the Risk |
|---|---|---|---|---|
| 1. Policies | Inexistence of policies | - | Open shelves<br>Special collection | Operation<br>Reputation<br>Legal<br>Obligations |
| | Irrelevance of policies | - | | |
| 2. Managerial risk | Budget | - | Open shelves<br>Special collection | Financial<br>Legal<br>Obligations |
| | Staffing | - | | |
| 3.Environmental Risks | Temperature | 7 | Special collection | Financial |
| | Relative humidity | 7 | | |
| 4. Housekeeping Risks | Dust | 4 | Open shelves<br>Special collection | Operation<br>Reputation |
| | tidiness | 7 | | |
| 5. Pests | Food | 4 | Open shelves (learning commons)<br>Special collection | Operation |
| | External | 4, 5, 7 | | |
| | Environment | 7 | | |
| 6. Light | Time of exposure | 7 | Open shelves | Operation |
| | Strength of light | 7 | | |
| 7. Mould | Pipe leakage | 5 | Open shelves<br>Special collection | Operation<br>Reputation |
| | Environmental | 4 | | |
| 8. Care and Handling | Shelving | 4 | Open shelve<br>Special collection | Operation<br>Reputation |
| | Customers (tears, acidity) | 5 | | |
| | Staff | 7 | | |
| 9. Manufacturing process | Lignin, acidity | 7 | Open shelves<br>Special collection | Reputation |
| | Binding | 7, 8 | | |
| 10. Particulates and Air Pollution | Material emission | 7 | Open shelves | Operation<br>Reputation |
| | External gases | 6 | | |
| 11. Reprographics related risk | Photocopying | 7 | Open shelves | Operation<br>Reputation |
| | Scanning | 7 | | |
| 12. Access and Security | Theft | 6 | Open shelves | Operation<br>Reputation |
| 13. Building | Material/fabrics | 3 | Open shelves<br>Special collection | Operation<br>Financial |
| | Maintenance | 3 | | |
| 14. Disastrous | Earth quake | 3 | Open shelves<br>Special Collection | - |
| | Fire | 3 | | |

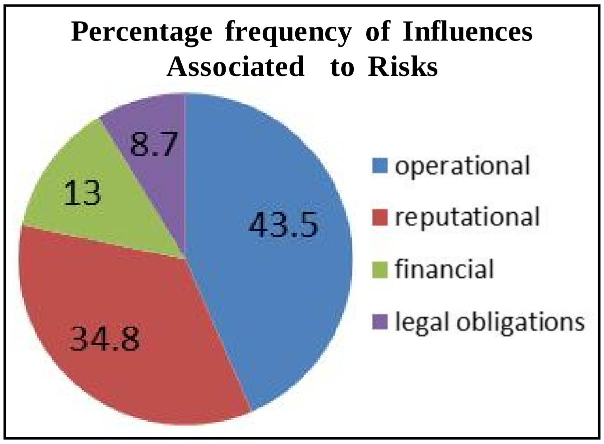


**Figure 1: Percentage frequency of influences associated to risks**

## Assessment Objective Four: Summary of Recommendations on Improvement

In order to address the objectives of this assessment a summary on recommendations for improvement was strategised into a table format below (table 3).

**Table 3: Summary of recommendations on improvement**

| Identified Risks | Aspects of Improvement/Strategy |
|---|---|
| **Policy Development** | The draft policies on preservation and conservation need to be edited and approved as soon as possible.<br>Supportive guidelines and procedures should be made available as a single approved handbook manual available both in print and in electronic forms. |
| **Pests Risks** | Database on pests, clearly showing their frequency, date, type and prescribed remedy on them (Pest monitoring and analysis) |
| **Housekeeping Risks** | Produce housekeeping guidelines (have a cleaning strategy)<br>Create database reports that clearly outline sources of dust, location, level of accumulation and prescribed methods for improvement |
| **Environmental Risks** | Produce database on temperature and relative humidity, monitor and analysis results yearly<br>Installation of Heat, Ventilation and Air-conditioning System (HVAC). This is a long term investment which requires huge amount of finance.<br>Purchase of cold room to store Audio visual materials |
| **Managerial Risks** | **Budget:** Library should have budget for preservation work and initiate a programme to look for funding<br>**Staffing:** educate staff on preservation work and Request for specialist staff |
| **Light** | Reduce light exposure as much as possible<br>Monitor lux and type of bulbs used |
| **Care and Handling Risks** | **Shelving:** conduct research on appropriate shelving method for mobile shelves (Re-shelving)<br>**Customer handling**: initiate a research and make a programme on user- education<br>**Staff handling**: user-educate staff on preservation |
| **Mould** | Monitor mould and perform frequent inspections |
| **Manufacturing process risks** | monitor and have specifications to guide binding process<br>have database on materials sent to binding their causes of deterioration, times sent to binding, frequency of binding, etc. |
| **Particulates and Air Pollution Risks** | Monitor and analyse air pollution and particulates in the library |
| **Reprographics Related Risks** | Provide user-education programs on proper methods of photocopying, scanning, etc. |
| **Access and Security Risks** | Provide service/maintenance to CCTV cameras<br>Perform monthly check on CCTV to identify any hidden collections theft |
| **The Building** | **Fabrics:** have gas emission monitoring programme<br>**Maintenance:** have selected personnel responsible for building survey |
| **Disastrous Risks** | Complete draft disaster preparedness and implement it.<br>Have a personnel to do continuous monitoring of fire extinguishers, exit doors, etc.<br>Collaboration with the entire university fire preparedness |

## Conclusion

First point of call in preservation management is the establishment of a clear preservation and conservation policy. In appreciation of the fact that this section is newly established in UB Library, the library has to have a target (e.g. 5 years) on which by then it should be in a position of monitoring, gauging and analysing the discussed risks. The preservation risk assessment indicate that most of the work does not necessarily need larger financial input for preservation implementations, for examples, risks of housekeeping, care and handling, reprographics and pests monitoring mainly require setting up guidelines and implementing policies. These have been classified as risks influenced by operational and reputational procedures. However, few types of equipment might be necessary to carry out database generation in order to monitor and analyse their extent. It is very important that the library work with other departments and associations to initiate research titles and build interest to academic staff to research on issues of concern in the library. The assessment recommends a strategy for improvement that should be used by the library preservation and conservation sub-unit. The prescribed strategies have not been prioritised into their agency, it is in the hands of the manager and staff in preservation and conservation sub-units to discuss what to address first.

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# ICT Use in Information Delivery to People with Visual Impairment and on Wheelchairs in Tanzanian Academic Libraries

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## Abstract

*This paper investigated the role of Information and Communication Technologies (ICTs) in information delivery for people with visual impairment and on wheelchairs in Tanzanian academic libraries. A pragmatism paradigm and the social model of disability of Oliver were employed using both quantitative and qualitative methods. Questionnaire, interview schedules and an observation checklist were used to collect data. The study population comprised library directors, other professional library staff, disability unit staff, people with visual impairment, and on wheelchairs and staff from the Ministry of Education's Special Needs Unit. A sample of 196 respondents was surveyed. The study found that ICTs facilitated information provision for people with these disabilities but that there was no adaptive or assistive equipment in Tanzanian academic libraries for them. Academic libraries should install assistive ICT equipment to facilitate information delivery easily, independently and remotely to people with visual impairments and in wheelchairs.*

**Keywords:** ICTs, Information delivery, People with visual impairments, People in wheelchairs, Academic libraries, Tanzania, Social model of disability.

## Introduction

The delivery of information services to people with visual impairment is an essential factor in interaction, development and progress in the life of human beings (Lucky and Achebe, 2013). These authors further claim that information services delivery to people with visual impairment requires the use of Information and Communication Technologies (ICTs) for analysis, processing, manipulation, storage, retrieval, transmission and communication of data in different forms. ICTs are any product, instrument, equipment or technical system used by a disabled person, especially produced or generally available, preventing, compensating, monitoring, relieving or neutralizing disability (Schiemer and Proyer, 2013).

Delivery of services via ICTs helps patrons to cope with the global explosion of information and knowledge. Chaputula (2012) observes that ICTs are commonly used tools for information gathering, processing, storage, retrieval, and dissemination in the emerging knowledge economy, particularly in advanced information societies. ICTs offer new opportunities for everyone but these opportunities are more significant for people with disabilities, as they use technological assistance for daily activities to a greater extent than their able-bodied counterparts.

People with visual impairment have particular requirements when accessing information that needs to be met. Access to electronic and print resources can be a challenge for people with visual impairment as these information resources are usually available in a format that is not suited to them (Harris and Oppenheim, 2003). With technological equipment adapted to the abilities of everyone, that is universal access, as motivated by the social model of disability of Oliver (1990), people with disabilities should be able to access information and participate in all aspects of social life on more equal terms than ever before. D'Aubin (2007:193) is of the view that ICTs need to be accessible so that people with disabilities experience the benefit of modern technology. Eskay and Chima (2013) recommend designing various types of software which would facilitate access, with little or no difficulty for people with disabilities, to the available technology.

ICTs can also play a wider role, enabling inclusion and social participation (Phipps, 2000). ICTs that are accessible enable people with disabilities to participate in all activities in their communities (D'Aubin, 2007). It is vital for people with disabilities to benefit, on an equal basis, from the rapid development of ICTs to allow them to enter an inclusive and barrier-free information society (Walterova and Tveit, 2012). Nkansah and Unwin (2010) highlight the finding that ICTs help to meet the needs of people with visual impairment by expanding the scope of information accessibility and increasing the rate of access to information for this group. Jaeger (2008) cited in Jaeger (2009) points out that for ICTs to be accessible, equal access should be provided to all users and compatibility with assistive technologies such as narrators, scanners, an enlargement function, voice-activated technologies, and other assistive devices should be ensured.

Assistive technology refers to the hardware and the software which have been developed to aid those with a disability which might otherwise prevent them from making full use of ICTs (Cahill and Cornish, 2003). For Akakandelwa, Stalone and Adibo (2012), assistive technology includes all devices developed to assist people with disabilities in performing tasks that might be difficult or impossible for them to achieve. This technology involves mobility devices such as walkers, wheelchairs and electric scooters, as well as communicative equipment such as hardware, software and peripherals to assist hearing, speaking and motion-impaired populace.

Academic libraries, as the life blood of higher education institutions (Okiy, 2012) can benefit tremendously from the facilities provided by ICTs (Ogunsola and Aboyade, 2005). For Myhill (2002), providing access to information for all users, irrespective of their physical disabilities, is a requirement for all libraries, and ICTs can be used to achieve this. This move towards the provision of services that are available to everyone equally, that is, universally accessible to all, has seen a remarkable shift in the information resources that are offered in many libraries and information resource centres. Therefore, the application of ICTs is very important in information delivery for people with visual impairment and in wheelchairs in academic libraries. ICTs facilitate independence, convert information resources to the format suitable for people with visual impairment, and help people with visual impairment and in wheelchairs to access information resources remotely rather than having to go to the library physically.

Motivated by this problem of providing universal access, and in particular access to information for these two groups of users in higher education, the study set out to investigate the role of ICTs in information delivery to people with visual impairment and in wheelchairs in academic libraries in Tanzania. This study is drawn from a larger doctoral study (Majinge, 2014), an overview of which is provided in Majinge and Stilwell (2014).

## Objectives of the Study

The objectives of the aspects of the study upon which the article is based were to:

- examine whether ICTs facilitate information delivery to people with visual impairment and on wheelchairs.
- find out what assistive equipment is available in academic libraries in Tanzanian higher education.

## Literature Review

The social model of disability by Oliver (1990) provided the theoretical framework and model for this study. Oliver's model is grounded in the principles of the United Kingdom's (UK) Union of the Physically Impaired Against Segregation (UPIAS) which was founded in the mid-1970s. This model is also endorsed by the UK's Society of College, National and University Libraries' (SCONUL) Access Working Group (Robertson, 2012). The model entails the recognition that people are disabled by social barriers which may be physical, or attitudinal or behavioural: "If no barrier exists, then a person with an impairment is not prevented from using services" (Robertson 2012). The model presupposes universal access to libraries, achieved, among other things, by practical measures such as the construction of ramps alongside stairs, installing automatic doors, providing information in Braille and large print, and providing assistive technologies such as Closed Circuit Television (CCTV), Braille embossers, screen magnification and screen reading software like JAWS (Shava, 2008).

Dragoicea, Sacala, Cojocaru, Shivaron and Balan (2009) assert that the aim of assistive technologies in Oliver's (1990) model is to overcome the gap between what people with disability intend to do and what the existing social infrastructure allows them to do. To support this statement, Adam and Kreps (2006) see availability and appropriate technology an integral part of the social model of disability. Dragoicea et al. (2009) further claim that the social model is the driving force behind recent improvements in access and that the tools of assistive technologies could enhance social inclusiveness. Similarly, Sheldon (2001) declares that the social model sees technology as enabling people with disability to be included in the mainstream of social and economic activity through the removal of disabling barriers.

ICTs are a vital resource in this era. They facilitate effective information transfer and access through various devices. Eskay and Chima (2013) support this assertion by stating that due to advances in ICTs, information is now available in different formats that can be accessed through various media. ICTs are becoming faster, easier to use, and more widely accessible on campuses, in libraries and learning centres, in workplaces and in homes (Bridgland and Blanchard, 2001). ICTs now have the capacity to take services to individuals who find it difficult to visit such centres because they live in geographically remote areas, have disabilities, are home-based for other reasons, or are occupied during the centres' opening hours (Watts, 2001). With the growing importance of ICTs, equal access to electronic information and services has become an important area of concern for social justice for those who have been marginalised in other areas of society (First and Hart, 2002 cited in Jaeger, 2006). Yoon and Kim (2012) insist that libraries must exist as social facilities that actively support persons with disabilities in their social participation and help them lead more comfortable lives. Tilley, Bruce and Hallam (2007) support this assertion by stating that "using appropriate assistive technology; libraries can improve information access and quality of life for large numbers of their patrons."

Today ICTs are being used as tools for improving efficiency and enhanced effectiveness in life to people with disabilities. Similarly, Dobransky and Hargittai (2006) declared that ICTs have been viewed as tools that enable people with disabilities to escape the isolation and the stigma that sometimes accompany their disabilities. In a similar way, Vicente and Lopez (2010) point out that ICTs help people with disabilities to eliminate many of the disabling barriers that impair or completely prevent them from participating in many activities. In the same vein, Ali (2008) claims that people with different kinds of disabilities are now able to communicate with each other and learn through the tools available for the purpose through ICTs. Eisma, Dickinson, Goodman, Syme, Tiwari and Newell (2004) note that ICTs are increasingly used by, and perceived as useful for, a diverse group of non-typical users, including older and disabled people.

Babalola and Haliso (2011) claim that libraries do take advantage of advances in ICT to increase information access for people with visual impairment. In addition, a broad range of assistive technologies such as CCTV, Braille embossers, screen magnification and JAWS are now available to provide access to information in electronic databases and on the internet, giving users with visual impairment opportunities equal to those of the sighted. In a similar way, Heiman and Shemesh (2012) indicate that assistive technologies offer alternative formats which relate to academic needs such as reading, writing and calculation.

Assistive technologies are prerequisites for people with visual impairment to access information resources housed in academic libraries. Rout (n.d) also claims that assistive technologies are essential for helping students with various disabilities to succeed in their studies. In the same vein, Wolfe and Lee (2007) cited in Heiman and Shemesh (2012) claim that using the different facilities of assistive technology programs may increase the independence of students with learning disabilities, facilitate learning, raise motivation for active participation in their academic studies, and encourage the students with learning disabilities to acquire and develop compensatory strategies for coping with difficulties.

## Methodology

This study was conducted within a pragmatism paradigm. The intention was to address the problems which people with visual impairment and on wheelchairs face in accessing information in Tanzanian higher education institutions by applying various suitable approaches to data gathering. Both quantitative and qualitative methods were used. The study was conducted in three administrative regions: Dar es Salaam, Dodoma and Tanga. In these regions, five universities were studied: University of Dar es Salaam (UDSM), Open University of Tanzania (OUT), Dar es Salaam University College of Education (DUCE), Sebastian Kolowa Memorial University (SEKOMU) and St. John's University of Tanzania (SJUT). In addition, the Special Needs Education Unit for Disabilities at the Ministry of Education and Vocational Training was included in the study. These five large Tanzanian universities agreed to participate in the study. Data collection took place from 30th September to 31st December, 2012 which allowed the primary researcher to visit all of the institutions.

The study involved 196 respondents, comprising library directors, other professional library staff, disability unit staff, and people with visual impairment and on wheelchairs. People from the Ministry were included through staff members from the Ministry's Special Needs Education Unit. The criterion for the choice of the latter respondents was that they were involved with policy formulation, budgeting, training and provision of information materials and equipment for people with disabilities in all schools and higher learning institutions in the country. In addition, various universities' disability unit populations were included in the study. Snowball sampling was used to identify the people with visual impairment and on wheelchairs because the researcher was not able to establish the actual disability population of the universities in advance. This sampling approach was employed to ensure that a suitable proportion of 57 library users with visual impairment and 6 users on wheelchairs was reached.

Questionnaires, interview schedules and an observation checklist were used to gather data. Data gathered through questionnaires were analysed using descriptive statistics facilitated by SPSS, and data gathered through interviews were analysed using thematic analysis.

Table 1 below indicates that of the 139 library staff who were expected to participate in the survey, 113 (81%) library staff actually completed and returned the questionnaire from all the universities surveyed in Tanzania.

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**Table 1: Population of library staff (N=139)**

| SN | University | Library Staff | | % response |
|---|---|---|---|---|
| | | Expected respondents | Actual Respondents | |
| 1 | UDSM | 77 | 66 | 47% |
| 2 | DUCE | 24 | 17 | 12% |
| 3 | OUT | 18 | 13 | 9% |
| 4 | SJUT | 13 | 11 | 8% |
| 5 | SEKOMU | 7 | 6 | 5% |
| **Total** | | **139** | **113** | **81%** |

**Source:** Field data (2012)

Table 2 below presents the breakdown by institution relating to the 76 people with visual impairment and on wheelchairs who were expected to participate in interviews or to complete a questionnaire and the 63(83%) people with visual impairment and on wheelchairs who were interviewed and completed a questionnaire in all the universities surveyed in Tanzania.

**Table 2: Population of people with visual impairment and on wheelchairs (N=76)**

| SN | University | People with visual impairments and in wheelchairs | | % response |
|---|---|---|---|---|
| | | Expected respondents | Actual respondents | |
| 1 | UDSM | 27 | 26 | 34% |
| 2 | DUCE | 10 | 9 | 12% |
| 3 | OUT | 20 | 10 | 13% |
| 4 | SJUT | 2 | 2 | 3% |
| 5 | SEKOMU | 17 | 16 | 21% |
| **Total** | | **76** | **63** | **83%** |

**Source:** Field data (2012)

Table 3 below, indicates that of the 19 disability unit staff who were expected to participate in the survey 15 (78.9%) staff actually completed and returned a questionnaire from the Ministry of Education and Vocational Training and all the universities surveyed in Tanzania.

**Table 3: Population of disability unit staff (N=19)**

| SN | University | Disability unit Staff | | % response |
|---|---|---|---|---|
| | | Expected respondents | Actual Respondents | |
| 1 | UDSM | 3 | 3 | 15.8% |
| 2 | DUCE | 3 | 3 | 15.8% |
| 3 | OUT | 3 | 1 | 5.2% |
| 4 | SJUT | - | - | - |
| 5 | SEKOMU | 5 | 5 | 26.3% |
| 6 | MoEVT | 5 | 3 | 15.8% |
| **Total** | | **19** | **15** | **78.9%** |

**Source:** Field data (2012)

In addition, five (100%) directors of academic libraries from five universities in Tanzania were interviewed.

## Findings and Discussion of the Results

The results are presented and discussed in the sections that follow. The results focus on the availability of the ICTs and whether ICTs facilitate information access for people with visual impairments and in wheelchairs in academic libraries in Tanzania.

### The Role of ICTs in Information Delivery for People with Visual Impairment and on Wheelchairs

Library staff were asked whether ICTs assist people with visual impairment and on wheelchairs with information delivery in academic libraries in Tanzania. Responses show that 102 (90%) out of the 113 respondents responded positively while eleven (10%) responded negatively.

The same question was posed to people on wheelchairs: whether ICTs assist access to the information needed. All six (100%) people on wheelchairs responded positively, indicating their view that ICTs assist them in accessing information resources. In addition, those who responded Yes were asked to explain how ICTs facilitate access to information. They explained that ICTs facilitate easy retrieval of information, as well as remote access to information.

People with visual impairment were also interviewed using an interview schedule about whether ICTs facilitate information access for them. All fifty-seven (100%) responded positively to indicate that ICTs helped them to access information . They explained that ICTs allow them to access information easily and independently, and also convert information into a suitable format.

### Assistive Equipment Available in Academic Libraries

Library staff were asked to indicate whether the adaptive or assistive technology is available in academic libraries in Tanzania. Responses from the 113 are shown in figure 1. A total of 76 respondents (67.2%) responded in the negative; 18(15.9%) indicated a tape recorder; 6 (5.3%) mentioned a Braille printer; 5 (4.4%) said a scanner/reader; 5 (4.4%) identified screen enlargement; and 3 (2.6%) indicated CCTV.

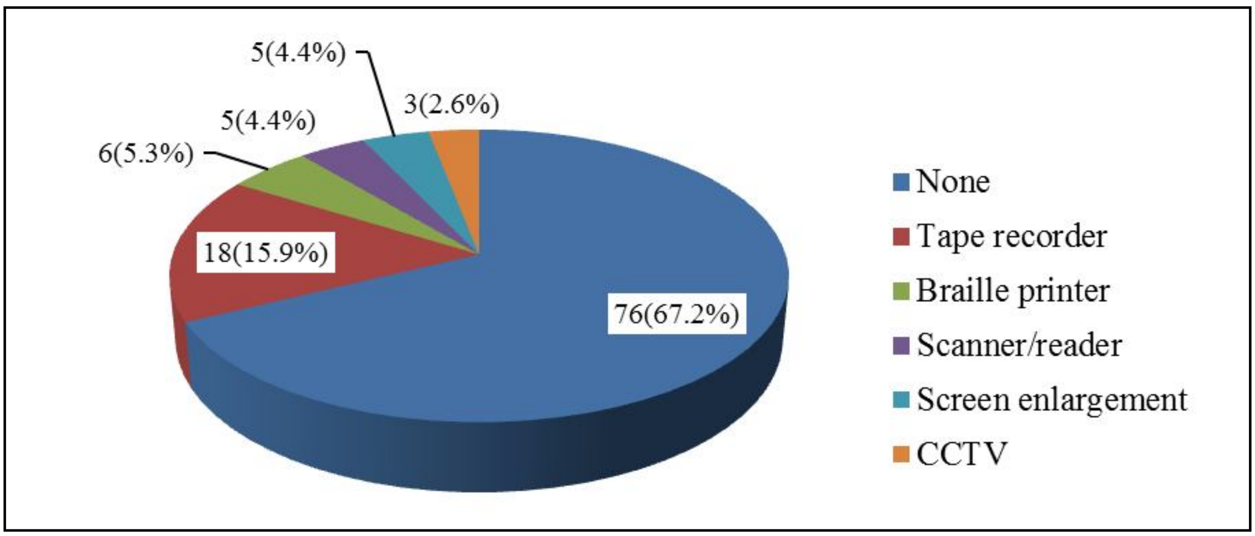


**Figure 1:** Adaptive equipment or technology available in the library: library staf responses (N=113) (Source: Field data, 2012)

People with visual impairment were interviewed to establish whether the library provided any assistive equipment to them. Despite the positive responses of the library staff on the availability of equipment mentioned by them, all 57 respondents (100%) with visual impairment responded negatively to indicate that libraries did not provide any assistive equipment, except for the one small exception noted in the last two lines in this paragraph. In addition, it was observed by the primary researcher that despite the positive responses from some of the library staff on the availability of assistive or adaptive equipment, the findings showed that the assistive or adaptive equipment available in all universities surveyed was in the disability units which were provided by the schools of education and not in the library. Only one library among the five academic libraries investigated had one type of assistive device in the form of audio tapes.

The findings relate to those of Bagandanshwa (2006) who notes that the required technologies were not available in Tanzania, both assistive and adaptive technologies were neither manufactured in the country nor were there local dealers. This lack of manufacturers made the devices difficult to purchase. When they are available, they are sold at exorbitant prices (Bagandanshwa, 2006). Vicente and Lopez (2010) point out that ICT equipment is much more expensive for people with disabilities of all types and they have to incur extra costs associated with their impairments. Similarly, Harris and Oppenheim (2003) agreed that assistive equipment and software can be extremely expensive and the benefit will be potentially to a small number of students.

Seyama (2009) noted that the University of KwaZulu-Natal (UKZN) Library computers at that time did not have a JAWS program, therefore the students had to use the local area network (LAN) rooms each time they needed information from the database. Walterova and Tveit (2012:346) also observed more generally that ICTs are still not available to all on equal terms. About 30 to 50 per cent of Europeans still get no benefit from ICTs and millions are at risk of being left behind in the emerging information society.

## Conclusion

The study concluded that ICTs facilitate information delivery to people with visual impairment and on wheelchairs easily, independently, remotely using sources. In addition ICTs are an enabler of access by students to learning which increases motivation, confidence, their self-esteem and enhances their independence.

## Recommendation

Despite the findings of this study and other similar studies which indicate that ICTs facilitate information delivery to people with disabilities, access in the Tanzanian university libraries studied is far from universal. These academic libraries need to convert information resources into formats which are suitable for people with visual impairment. In addition, people with visual impairment and on wheelchairs need specialised services or adaptive equipment to access and use information resources housed in the library and remotely from their homes. This provision of access, the installation of software like JAWS and other related software, as well as training on how to use assistive equipment, are needed urgently.

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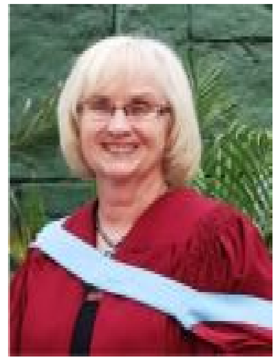

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# Short Communications

# Library Cooperation and Resource Sharing: Some Lessons from the University of Botswana

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## Abstract

*In the world that is characterised by shrinking economy, a library may not be able to effectively and suitably meet the information needs of all its users. Cooperation and resource sharing among libraries are therefore considered a sine qua non for effective performance. The paper notes that cooperation and resource sharing among libraries cannot be limited to materials, but need to be extended to skills and human resources. Drawing from experiences of the University of Botswana Library (UBL), this paper identifies some problems that could arise when cooperation disappears and division and dichotomy develops. The University of Botswana operates with limited physical infrastructures. This paper proposes that the high quality service the University of Botswana Library (UBL) achieves is driven by cooperation and resource sharing. The areas of strong collaboration include cooperation within the Library, the faculties of the institution, and cooperation at the national, regional and international levels. The benefits from cooperation and resource sharing are explored, and it is concluded that such practices determine the excellence of UBL.*

**Keywords:** Library cooperation, resource sharing, information literacy, distance learners, training, general education.

### Background Information of the University of Botswana Library

The University of Botswana (UB), a broad-based public institution situated in the nation's capital city of Gaborone, was established in 1982. Standing in a country with a land area of 582,000 square kilometres, the University of Botswana is the first of the only two government-owned universities in the country. The establishment of the second government-owned university has recently offered admission to its first cohort of students. The University of Botswana has two other campuses located outside Gaborone: one in the northern city of Francistown, and the other a research institute situated in Maun Township. According to the University of Botswana Fact Book (2011), the overall students' population is 15,731 comprising 12,626 full-time students, 2,559 part-time, and 546 distance learning students. Of these, 14,434 are undergraduates and 1,391 are postgraduate students. The University has 2, 805 total staff establishment comprising 4 Executive Management, 1,533 Support Staff, 813 Academic Staff and 455 Industrial Staff.

The University of Botswana Library (UBL) currently has 456,933 books, 14,511 e-books, 32,713 pamphlets, 1,030 print journals, 108,925 full text journals, 79 electronic databases, and 187 internet dedicated workstations (University of Botswana Facts and Figures, 2011). The Library has 145 staff members. Some of the new developments in the Library include the establishment of a digital institutional repository, 'the University of Botswana Research, Innovation and Scholarship Archive' (UBRISA) and 'the Learning Commons' (LC). For the running of its operations, the UBL adopts a model of central acquisition - central processing and distribution of library materials to branch libraries on a regular basis.

For administrative purpose, the UBL restructured in 2000 and stratified the Library into three sections with a Deputy Director heading each section. The restructuring initiated the creation of Customers and Extension Service (CES), Resource Management (RM) and Information Resources and Services (IRS). The CES section deals directly with the on-campus and off-campus students and staff. It is responsible for the circulation of all library materials to on- campus students and staff, as well as meeting the information needs of the continuing education students of part-time evening classes and the distance learners. The RM section takes charge of acquisitions and processing of materials, allocation of funds according to cost centres and the systems unit of the Library. The IRS section, which has the highest number of professional subject specialist librarians, deals directly with the faculties. They liaise with the academic staff and arrange course link information literacy packages for the students in various courses. As subject specialists, the professional librarians are responsible for recommending a selection of materials for the RM to purchase. Each of the sections has its own team of professional librarians and paraprofessionals. For all the sections to work effectively and efficiently, each section needs the cooperation of one other. The effectiveness and efficiency in library and information service in the UBL is seen in the cooperation and willingness of library staff to share specialist knowledge. The creation of the sections became a limitation and created division among the staff to the detriment of smooth running of the Library, which will be discussed later in this paper.

## SWOT Analysis of the University of Botswana Library

When Strength Weakness, Opportunities and Threats (SWOT) analysis is considered, one particular area of strength the UB Library had was the diverse expertise of the library staff. The UBL had recruited librarians from several countries including Botswana, Canada, Ghana, India, Malawi, Nigeria, Zambia, Zimbabwe, UK and USA. The combined efforts of the highly skilled staff, good funding, coupled with maximum cooperation and resource sharing among librarians and libraries locally, nationally internationally, meant progress, development, achievement and excellence for the Library. On the weakness of staff, individuality and attempt to ‘hoard’ information was perceived. In the strength of the staff was seen the opportunity to attain great height and accomplish tasks when the strengths of staff were pooled together. Even though there was the threat of future institution of the second public university that would compete in subvention given to the UB and consequently affect the UBL, perhaps, the greatest threat confronting the Library was the issue of insecurity of job for staff, especially the expatriates. The combination of threat and weakness seems to set the tone of the problems that would later emerge, as unhealthy rivalry, competition and dichotomy were gradually encroaching and becoming the order of the day in the Library.

The initial restructuring of the University of Botswana Library into sections created an atmosphere where problems were seen as the responsibility of a particular section or division of the Library. Staff who the restructuring grouped in a particular division hardly gave support to the functioning of another division and appropriate service to the users in general; rather, they were committed to the responsibilities of their sections or divisions. Thus, the sections created in the fast expanding library to ease the process of administration contributed to creating division and dichotomy among library staff and between sections. The restructuring and divisions created seemed to be working against the mutual cooperation and previous harmonious co-existence of the library staff.

## Audit Report of the University of Botswana Library

In 2008, an external audit team from the University of Pennsylvania Library noted in their report on the Library that:

> We found certain organizational dynamics that impede the effective performance of the staff and thus the successful progress of the Strategic Plan as it relates to the customer focus on service quality. The following are the main issues: staff working in silos resulting in lack of shared responsibility and coordination. Relationship among units is unclear,

particularly concerning ownership of services and projects.

(Upenn External Audit team report (2008: 7)

The audit report generated change, as it seemed to be a wake-up call to the library management. In order to address the problem, the management organised series of meetings and advocated the need for the entire library staff to see each other as one and users as the number one priority. Some leadership training programmes and customer service workshops were organised for staff, while some members of staff were transferred from one section of the Library to the other. Other strategies the library management adopted to break down detachment between sections and divisions include designating some staff to work for more than one section or division; and when committees were set up on any issue, membership cut across all sections. Some assignments that cut across divisions were carried out on rotational basis among staff. The measures taken by the Library to resolve the separation of staff, section and division re-established collaborative and working relationship and the return of cooperation among colleagues in the Library.

## Benefits of Cooperation and Resource Sharing

There is a great deal of literature on resource sharing and cooperation among libraries emphasising the importance of belonging to a resource sharing network. OCLC (2012) asserts that when a library belongs to a sharing network, more information is readily available and customer satisfaction is enhanced. Mudd and Havens (2008) claim that shortages are an inevitable consequence of social and economic instability, and argue that resource sharing and cooperation can resolve insufficient supplies. They draw on the origin of resource sharing, referring to The Farmington Plan. This plan was a proposal for shared collections when there were shortages of international materials during the World War II. Michalko and Malpas (2009) identify benefits of resource sharing, noting that for more than a century, library cooperation in the United States has enabled individual libraries to save on costings while expanding the reach of local collections and services. Mannan (2009) believes that in the age of information explosion, there has been a growing problem with the collection, processing, storage and dissemination of information. He observes that due to duplication of investments in library holdings, the cost of providing service to the users becomes higher. He argues that resource sharing and networking is the ultimate solution to the problem.

## Cooperation and Resource Sharing at the University of Botswana Library

The University of Botswana Library became a resource centre of note because of its exceptional level of cooperation among the staff who were diversely skilled. Staff members were always prepared to share knowledge and train others. This leads to overall better performance by staff in their jobs and responsibilities. Training in the field of information and communication technologies was offered by specialist staff as required. Some of the skills which staff were trained in at inception included the construction of portals, mapping of collection development, the use and application of PowerPoint presentation, Ms-excel, endnote, the use and functionalities of the Internet, construction of websites and blogs. Such cooperation ensured that library clients requiring information and communication technology assistance had professional support without any delay. Problems were addressed collaboratively and were not seen as a sectional or divisional problem.

## Cooperation with Faculties: Information Literacy Education and Lifelong Learning

Prior to the integration of information literacy skills (ILS) into the curricula of the University, different departments and faculties had been teaching ILS skills in a sporadic and an uncoordinated manner. In order to prepare the students of the University of Botswana for lifelong learning, Ojedokun and Lumande (2005) suggest that there was a need for cooperation between the Department of Computer Science and the UBL. The authors affirm that the librarians are in collaboration with the lecturers in the Computer Science Department. As a result of this co-operation, they jointly developed the curriculum around computing and information literacy education in General Education Courses (GEC) 121 and 122. The aim of General Education is to provide the University of Botswana graduates with a broad-based knowledge and skills to prepare them for work and citizenship in the context of the University's Vision, Mission and Values. In a document on 'A strategy for excellence', University of Botswana (2008) states that "The Vision of the University of Botswana is to be a leading centre of academic excellence in Africa and the world; while the Mission is to improve economic and social conditions for the Nation while advancing itself as a distinctively African university with a regional and international outlook. The University, among others, values opportunities that will facilitate the full realisation of the potentials of students for academic and personal growth.

With the integration of Information Skills into the curriculum, the need was also felt to introduce computing skills component. Thus, the GEC 121 and 122 courses made compulsory for all 100 level students of the University of Botswana had the components of computing skills and information skills, and were jointly and cooperatively taught and examined by the computer science lecturers and the librarians. As the courses were made compulsory for the on-campus students of the University, the courses were also developed into modules for off-campus distance education students in a similar fashion as other courses were prepared and taught.

In a recent review exercise of the General Education courses of the University, the alliance between computer science lecturers and librarians was broken; with the result that librarians are now paired with lecturers in Communication and Study Skills Unit (CSSU) to teach COM 111 and 112 courses. Whilst the communication and study skills component is taught by the lecturers from the CSSU, the librarians remain the lecturers of the information skills component for the two courses. The skills-based courses are at present being taught for two semesters, with COM 111 taught in the first semester serving as a requirement for COM 112 taught in the second semester. Whether paired with computer science or communication and study skills lecturers, the job of the librarians at the University of Botswana now involves cooperative and active teaching on how to find, use and evaluate information as part of a lifelong learning continuum. The involvement of the librarians in the teaching assignment at the University of Botswana has thus further increased the level of understanding, cooperation and resource sharing between the Library and the faculty. It also ensures full realisation of the potentials of students for academic and personal growth

## Cooperation at National Level

The University of Botswana Library is a major resource centre in Botswana and legal depository in the country. Despite the fact that the University operates distance and continuing education programmes which attract students from all over the country, it has physical facilities in only four locations. The outreach arm of the University runs a number of part-time evening diploma courses and distance education at degree level in about eight locations. Irrespective of the type of programmes on offer and the location of the students, the UBL knows it has the responsibility to take the library resources and services to the students. For a library that has the obligation to meet the information needs of the students but has some handicaps in terms of adequate physical facilities, it has to go into cooperation and resource sharing with other libraries around. For instance, distance learners desire to have access to catalogues or the holdings of the Library without having to travel long distances. This can be achieved by establishing some level of cooperation and resource sharing with other libraries near the ubiquitous students. The UBL maintained printed catalogues and or a small collection of some recommended materials in some cooperating libraries where the students meet for occasional residential programmes.

In Botswana, the national public library has several branches or facilities in various parts of the country. In some locations, the UBL is into some form of collaborative partnership with the local branch public library to be able to effectively serve the students in the catchment area. It should however be noted that though public libraries serve the generality of the people, they hardly stock materials for higher level (the University) students. In this respect, part of the agreement was to deposit some materials in public libraries for the use of the UB distance learners. In other cases, the cooperation of the libraries of technical colleges (where they exist) is solicited and the facilities are used where allowed. This can appropriately be described as collaborative effort among libraries and information centres in aid of distance learning. In cases where the materials deposited would not meet the information needs of the learners, telephone calls are made or emails sent to the closest UB branch library to supply the required materials to meet the needs. In instances where the Centre for Continuing Education – the outreach arm of the University of Botswana uses hired premises for the part-time evening programmes, or distance education regional centres, the cooperation of the appointed coordinator and or library of the institution is solicited to keep some materials that the students could obtain on loan. This arrangement is usually undertaken with the knowledge and approval of the school authorities where the programme takes place.

## Cooperation at Regional Level

Though relatively well funded and resourced, UBL, like other libraries, often finds it difficult to satisfy all the information needs of its numerous customers. OCLC (2012) states that when your library belongs to a sharing network, more people find the information they want. There is a number of ways resources are shared and cooperation solicited and obtained among libraries in Southern Africa. A few of the most important ways are mentioned. First, the University of Botswana Library is a member of Southern African Bibliographic Information Network (SABINET). Oyelude and Ola (2008) describe SABINET as -a library consortium in South Africa - a union catalogue of collections of a number of major libraries in Southern Africa. Based in South Africa, SABINET (2012) prides itself as an organisation that facilitates access to electronic information. The catalogue tells of the collection of each library in the union. When a user makes request for any materials that are not available in UBL, the inter-library loans service unit of the UBL checks the library that has the item in the Sabinet and makes request to obtain the item from the member library. It is further noted that, generally, the consortia eliminates replicating processing of the same materials over and over again, thereby cutting costs, time and energy among consortia members.

Another salient area of cooperation and resource sharing that the UBL has tremendously benefitted at the regional level is what has been described as Gauteng and Environs Library Consortium (GAELIC). Willis (2009) in a statement described GAELIC as a regional academic library consortium established in 1996 as a programme of FOTIM, a South African higher education consortium. GAELIC was initially established to collaborate in the purchase of a common library system; its focus has evolved to ensuring the effective use of the library system; skills development and capacity building of member library staff and seeking opportunities for resource sharing and cooperative purchasing. Its benefits include: providing networking opportunities among member library staff, collaborative projects, access to collective resources and cost-effective practices. Members of partner libraries also visit each other and assist in jointly tackling and solving problems.

Through networking and resource sharing, the University of Botswana Library has profited from a number of libraries in the region, especially libraries in South Africa. It will be noted that for reasons of proximity and cutting cost, the UBL can easily make a quick call to any of the neighbouring South African University Libraries and compare notes. A typical case in point was when the UBL wanted to establish Learning Commons. Since the idea of learning commons was new, but considered a project that was capable of improving the students' experience as a priority area in the strategic plan of the University of Botswana, site visit was considered a necessity. At the time, only one university in South Africa had a semblance of the learning commons and a visit had to be undertaken to borrow 'vessel' on the plan and its operationalisation in the university operating it in South Africa.

## International Cooperation and Resource Sharing

University of Botswana Library (2012) in its vision statement asserts that 'the Library will be a leading customer-centered provider of excellent, globally competitive information services and access to resources.' In order to ensure the fulfillment of the vision statement, it is viewed that the UBL must compare with other major libraries around the world. Problems arise where the librarians would not want to carry out research and publish, but would complain when there is disparity in their treatment against the academic staff. Even within the Library, not all the librarians would want to participate in the mandatory teaching of information literacy skills (ILS). In order to live the Vision statement and be able to put up the best practice and service, the UBL was benchmarked with a number of libraries internationally. The UBL ensures that links are established with some of the renowned libraries and relevant international associations worldwide. First, in order that network could be established with professional colleagues in various parts of the world, the librarians are encouraged on self development and sponsored to attend and make presentations at international conferences. As such the UBL librarians are able to establish links, cooperation and sharing of resources with their counterparts in libraries in different parts of the world. On several issues, they could compare notes with, and seek or obtain advice from their professional colleagues outside Botswana. In some cases, the UBL librarians are also able to share ideas or offer advice to others. The encouragement received enabled some of the librarians to register for and complete their PhD degrees and other higher degree programmes. The UB librarians and the Library are also regular members of professional associations. Through international cooperation, the UBL has been able to produce the president of International Federation of Library Associations and Institutions (IFLA).

For reasons of the network established, the UBL as noted has been able to easily compare notes with one library or the other on virtually any projects embarked upon. For instance, when it was felt that the auditing of the UBL was needed, the partnership with University of Pennsylvania (Upenn), which the UBL enjoyed, was readily available to undertake the exercise. Similarly, when the UBL wanted to establish the learning commons and needed to hear the views of the libraries that had gone through the project, the University of Guelph *Library* (UGL) in Canada was contacted for assistance. The shared information and resources obtained from UGL were beneficial to the UBL. In addition, the UBL as a member of Development Partnerships in Higher Education (DelPHE) has incredibly benefitted from the cooperation and resources that accrued to and from member institutions. DelPHE is a project supported by the United Kingdom Government. Among others, the UBL has received assistance from DELPHE Project on Information Literacy Initiative towards Best Practices, which attempts to develop an Information Literacy programme for lifelong learning. The objectives help bring lecturers and library professionals closer together in curriculum design and programme implementation in the field of information literacy, and also empower libraries to fulfil their role in developing and delivering lifelong university learning strategies (DelPHE project, 2011).

Through the established cooperation, the UBL has been able to benefit from exchange programme with partner institutions. It is on record that the UBL has sent some of its staff for exchange or attachment with collaborative libraries in the US, UK and South Africa, among other places. The UBL, being an established library within the region of Southern Africa, has also been a beckon to a number of libraries in Namibia, Nigeria, and South Africa which sent their staff for some period of attachment and training.

## Conclusion

For a library to effectively meet the information needs of its varied users, it must take advantage of the benefits of networking. This will allow a library to offer a world of limitless resources. The focus has shifted towards creating cooperation and connections between people and developing the need for exchange and sharing of resources among libraries and information centres. The University of Botswana Library instigated a cooperative and resource-sharing approach not only at local and regional level, but also at an international level. The benefits are boundless, and this has been evidenced in the effective and efficient service that the UBL is able to offer it students. In collaboration with the faculty, the UBL teaches information literacy skills made compulsory for all 100 level students of the University. This collaboration has resulted in fulfilment of Vision, Mission and Values of the University and the Library. The UBL has also been able to provide services and receive resources that ordinarily would have been difficult. Today, some of the librarians are also very proud of their achievements. Given the ever increasing possibilities that technology offers, it is important that the UBL continues reviewing, expanding and improving its current services to accommodate the students who utilise their facility.

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# Facebook as an Information Service Delivery Tool: Perspectives of Library Staff at the University of Benin, Nigeria

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## Abstract

*The study investigated the effectiveness of Facebook as a tool for information service delivery (ISD) in libraries. The descriptive survey method was adopted for the study which was based on the perceptual experience of 49 of University of Benin Library staff who had Facebook accounts and took part in the library's Facebook group activities. The closed-ended questionnaire with_a 4-point rating scale was used for data collection, and data were analysed using simple percentages. The results revealed that Facebook is an effective tool for ISD. In Conclusion, the study provides an understanding of how libraries can use Facebook for ISD.*

**Key words**: Facebook; Information Service Delivery (ISD); Library Staff Perspective

## Introduction

The Internet today has revolutionised the way people communicate and disseminate information. Contemporary "www" and non-www Internet products and services amaze the world. Among today's most used and most celebrated Internet products and services are social networking services. However, the configuration of people connected to one another through interpersonal means such as friendship, common interests or ideas, otherwise known as social networking, was not created in the age of the Internet, it existed long before, because humans are societal, and require relationships with other humans in order to survive (Coyle and Vaughn, 2008). Nevertheless, networked computers and the Internet most especially, immensely contributed to the rapid expansion of social networks in unanticipated and unprecedented ways.

Among social networking services, Facebook Incorporated, the privately owned social networking service and website of Facebook, stands out. As Facebook expands and dominates the social networking environment, more libraries around the world are expanding alongside by creating Facebook pages and groups for awareness, marketing and service delivery. A quick Facebook 'page search' using the keyword "library" (i.e. in the Facebook search bar, type the word 'library' and click the option below which reads: "Find all pages named " library ") will reveal a long list of libraries that have Facebook Pages, and a click on any of the libraries' pages will show how their Page activities point towards awareness creation, marketing and service delivery.

For the John Harris Library, University of Benin, taking advantage of the new level of communication Facebook has brought about would mean professional uprightness, which implies compliance with library and information associations'/institutions' clamour for libraries to embrace social media, and reach out to their user communities through the same. Facebook is also an easy way to reach out and market the library for free. In the light of that, the library created a page and a group on Facebook for effective marketing of the library and efficient information service delivery. The page is strictly for professional and academic purposes, as it was intended to be an alternative to the library's website. The group was intended to foster information dissemination and easy communication between librarians and current and potential patrons, and provide a means for easy interaction among library staff.

When the group was created in October, 2011, membership was made open only to library staff as a way of fostering easy and free communication of official information among staff. This yielded an encouraging result from the onset as many staff, even those who were on leave as at the time of the group's creation, testified that the group was a good and timely way of communicating beneficial official information. Furthermore, this interesting way of communication prompted other staff to create and operate active Facebook accounts. However, considering the influx of membership requests from students, other library patrons, and alumni of the University of Benin, and because of certain information communicated among library staff which were considered valuable information for patrons as well, the group was made open to the public in November, 2011, barely one month after its creation. Membership, thus, currently cuts across library staff, students and staff of the University of Benin, the University alumni, potential students of the University, and friends of the library and the University around the globe.

Subsequent to operating an open group:

- many information needs have been met, as members of the group post questions on the group's wall and get answers to their questions from other members;
- professional practices among librarians have been boosted, as many librarians see the group as a good platform to carry out professional services like online reference service, selective dissemination of information, information service delivery, etc.;
- positive views about the library have enhanced, as members of the group commend the library for creating such a group where they are sure to get assistance;
- a "feel-very-free" meeting point between students and library staff has been created, as students who for one reason or the other cannot ask questions in the library take advantage of the group;
- a good feedback channel about the library's products and services has emerged, as members of the group regularly update on the group's wall their good and bad experiences in the library on a particular day.

Developments which cut across mobile and web technologies are constantly impacting library and information services. Evolving service provision to support these technological advancements is now of greater importance. Among web technologies libraries take advantage of to advance information services are social media; and obviously, Facebook is one social medium which cannot be underestimated because of its popularity and vast usage.

In February, 2004, Facebook was launched to help people stay connected with friends and family, discover what is going on in the world, and share and express what matters to them. Summarily, Facebook was intended to make the world more open and connected (Facebook, 2013). From its inception, Facebook has experienced an astounding number of views and users. As at December 2013, Facebook had 1.23 billion monthly active users, which implies an average of 757 million daily active users, and 945 million monthly active mobile users (Facebook, 2014). These striking statistics can be attributed to its popularity which is worldwide, and its services, products and features which are multilingual. According to Alexa, a subsidiary company of Amazon.com which provides commercial web traffic data, Facebook is the most-trafficked social networking site in the world and the second most-trafficked website on the web after Google (Alexa, 2013). For its popularity, Wise, Alhabash and Park (2010) say Facebook has become "not only a technological phenomenon, but also a realm of interest for scholars exploring the processes and effects of computer-mediated communication and social networking." From inception also, Facebook has competed favourably with earlier-existing social networking services like Bolt.com, hi5, Kiwibox, LinkedIn, MySpace, etc., and its users cut across individuals, interest groups, government, business ventures, religious bodies, academic and non-academic institutions, and other forms of organisations – corporate and non-corporate.

Following its launching in 2004, many things have been written and said about Facebook and its use by libraries. Among other speeches and write ups, using Facebook as a channel of communication between librarians and patrons and using Facebook as a marketing tool for libraries are issues which have been given great audience. According to Gerolimos (2011), the debate about Facebook has only just begun and academia has been fertile ground for exploring the possibilities that it presents as an educational tool, in general, as well as a tool to publicise services offered by academic libraries. Graham, Faix, and Hartman (2009), from their experience of using Facebook affirmed that Facebook is a professional tool to publicise library services. According to O'Dell (2010), social networking sites (SNS) like Facebook provide an innovative and effective way of connecting users, and features of SNS enable users to generate interpersonal connections based on common grounds (Greenhow & Robelia, 2009). Hence, Lawson (2007) says a Facebook group's presence does have one significant practical advantage, which is one member's ability to send a message to all other members of the group at once. From their great perks of having a Facebook page, the University of South Florida School of Information, in their Annual Newsletter of 2012, say that with Facebook, libraries can share information for free, communicate with patrons and patrons with other patrons, carry out customer service, and get feedback.

In the past few years, libraries have begun to examine the possibilities available to them through social networking sites like Twitter and Facebook as a tool for library awareness and marketing. As Facebook has come to dominate the social networking site arena, more libraries have created their own library pages on Facebook to create library awareness, to function as a marketing tool (Jacobson, 2011), and for information service delivery.

## Statement of the Problem

In John Harris Library, University of Benin, Information Service Delivery (ISD) is usually a "physical" practice, where the library user who needs help, or their representative has to come to the library and meet face-to-face with the library staff rendering the service. This is somewhat cumbersome as both parties have to be present, irrespective of distance, time, and financial constraints before the service is rendered. As a way of making the service less stressful for both parties, a Facebook group was created, among other reasons, to enhance ISD, as the service could be rendered over the Internet, beating the associated constraints mentioned above.

## Objective of the Study

The objective of the study is to ascertain if the Group is living up to expectations. This study was prompted, hence its purpose is to investigate the effectiveness of Facebook as a tool for Information Service Delivery (ISD) in libraries.

## Methodology

The descriptive survey method was adopted for the study. The study was based on the perceptual experiences of John Harris Library's staff who had Facebook accounts and took part in the library's Facebook group activities. The library had a total of 202 staff as of the period data were collected for the study, but only 49 were involved with the Facebook group, and all 49 were surveyed. The closed-ended questionnaire with a 4-point rating scale was used as the instrument for data collection. Though closed-ended, the questionnaire also gave room for respondents' other opinions where necessary. After distribution, all 49 copies of the questionnaire designed for the study were retrieved as the researchers kept close contact with respondents who were also fellow colleagues. Data collected were analysed using simple percentages.

## Findings and Discussion

The respondents comprised librarians and library officers who were also the modal class, as against two percent senior librarians and were distributed all the units and sections of the library, as well as the faculty libraries.

## Purpose of Facebook

The purpose for which Facebook is used is shown in table 1. The table reveals that connecting with colleagues and students ranked highest as all the respondents engaged in this. Also, results show that more respondents agreed strongly and lightly to the reasons for which the group is used, compared with the number of respondents who were on the disagreement sides. This shows that the group is actually a platform for information service delivery.

**Table 1 : Usage of Facebook**

| Usage | Strongly Agree | Agree | Disagree | Strongly Disagree |
|---|---|---|---|---|
| To share personal opinion with colleagues | 38(78%) | 11(22%) | - | - |
| To pass official information to colleagues | 31(63%) | 15(31%) | 3(6%) | - |
| To pass information to students | 23(47%) | 10(20.4%) | 7(14.2%) | 9(18.4%) |
| To be abreast of latest information posted by other members of the group | 41(84%) | 5(10%) | 3(6%) | - |
| To ask questions | 33(67.35%) | 11(22.45%) | 3(6.12%) | 2(4.08%) |
| To connect with colleagues and students | 49(100%) | - | - | - |

However, 18.4% of the respondents strongly disagreed that they pass information to students via the group. The reason for this could be inferred from the first two options which reveal that respondents, being colleagues, communicated more among themselves rather than with students. This corroborates the perk of the University of South Florida School of Information (2012) that Facebook is a great platform for all forms of library communication. All the respondents (100%) rated Provision of factual answers to queries as excellent and 80% rated current awareness service as excellent and 20% good as revealed in table 2.

**Table 2: Facebook Services**

| Service rendered in the group | Excellent | Good | Fair | Unsatisfactory |
|---|---|---|---|---|
| Current awareness service | 39(80%) | 10(20%) | - | - |
| Selective Dissemination of Information | 14(29%) | 19(39%) | 16(32%) | - |
| Instruction in the use of the library | 23(47%) | 22(45%) | 4(8%) | - |
| Provision of factual answers to queries | 49(100%) | - | - | - |

### Quality of Information

Table 3 shows that all the respondents were satisfied with the provision of factual answers to members' queries. The table also shows that 80% of the respondents rated that current awareness service via the group was excellent. On the contrary, only 29% agreed that selective dissemination of information was excellent, while 39% saw it as good, and 32% said it was fair. Similarly, most of the respondents saw instruction in the use of the library as positive, as 47% ranked it excellent, and 45%, good. The rating of the services outlined in the table shows the services were actually being delivered, and the selection of services delivered in the group is in line with the recommendation of the Reference and User Services Association (2000) that information services should be of varying forms. Also, the results confirm the posits of Gerolimos (2011) and Graham, et al. (2009), who affirmed that Facebook is a tool to publicize library services.

**Table 3: Information Quality**

| Quality of information Content | Strongly Agree | Agree | Disagree | Strongly Disagree |
|---|---|---|---|---|
| Highly informative | 30(61%) | - | 19(39%) | - |
| Informative | 19(39%) | - | 30(61%) | - |
| Not informative | - | - | - | 49(100%) |
| Unsatisfactory | - | - | - | 49(100%) |

Results shown in table 5 reveal that 61% of the respondents strongly agreed that the group was highly informative, while 39% preferred to rate the group as just informative. On the contrary, the same percentage which rated the group as highly informative disagreed that the group was just informative, and vice versa. However, all the respondents strongly disagreed that the group was not informative or unsatisfactory. This also implies the group's appropriateness for information service delivery. The above findings are supported by the position of the Reference and User Services Association (2000), which impresses on libraries the fact that they need to develop information services appropriate to their community; hence, user satisfaction is inevitable.

All the respondents agreed that the way most services were rendered in the group was excellent as revealed in table 4. This is evident in the results which show that assistance was always available; queries were attended to in timely manner; pieces of information disseminated were of high quality, and the manner of response to members' queries and posts was polite. However, 71% of the respondents agreed that feedback which emanated from information delivered was excellent; 29% preferred to say that feedback was just good, and none rated any form of service performance as fair or unsatisfactory. Though, it seems like the respondents were evaluating themselves here, however, it is important to mention that not all of them were involved in the provision of service in the group, as some of them were more of recipients who benefitted from the information and assistance given by others. It is also important to mention that as an interactive group, some members of the group who are not library staff were also involved in giving assistance to other members of the group, as students provided answers to questions asked by their fellow students, and faculty members also providedanswers to students' queries. So, evaluating service performance here does not imply services rendered by library staff alone, but services rendered in the group as whole, irrespective of who renders the service. Thus, service performance in the group is in line with Ranganathan's five laws of Library Science which basically promote quick and easy access to information, and also in line with libraries' and library associations' etiquette which promote politeness as a matter of great importance among librarians.

**Table 4: Service Performance Rating**

| Service Performance | Excellent | Good | Fair | Unsatisfactory |
|---|---|---|---|---|
| Availability of assistance | 49(100%) | - | - | - |
| Timely response to queries | 49(100%) | - | - | - |
| Quality of information | 49(100%) | - | - | - |
| Politeness in response | 49(100%) | - | - | - |
| Feedback | 35(71%) | 14(29%) | - | - |

**Challenges of Using Facebook**

As shown in table 5, all the respondents disagreed to varying degrees to all the problems anticipated to be likely hindrances to members' effective participation in the group. However, 29% of the respondents agreed that administrative caution and sanction of members who did not abide by the rules of the group was poor. Also, a small number of respondents constituting four percent agreed as well that responses to their queries were delayed.

**Table 5: Problems Encountered Using Facebook**

| Problem | Strongly Agree | Agree | Disagree | Strongly Disagree |
|---|---|---|---|---|
| Poor quality information in the group | - | - | 19(39%) | 30(61%) |
| Poor administrative prohibition of derogatory, defamatory, religious, vulgar, casual and trivial posts | - | - | 15(31%) | 34(69%) |
| Poor administrative caution and sanction to members who do not abide by the rules of the group | - | 14(29%) | 23(47%) | 12(24%) |
| Delayed response to your queries | - | 2(4%) | 16(33%) | 31(63%) |
| No feedback to your posts | - | - | 15(31%) | 34(69%) |
| Rude comments from members | - | - | - | 49(100%) |

These results behold administrators of the group to look into their etiquette and come up with more satisfactory cautionary measures. Also, rather than neglecting the opinion of the relatively low percentage of respondents who indicated that they experienced delay in response to their queries, administrators should take the opinion into cognisance and improve on response timing.

From results shown in table 6, 77.6% of the respondents agreed strongly that they were very satisfied with the services delivered in the group, while 22.4% agreed strongly that they were just satisfied with same. Imposingly, 37% and 63% disagreed and strongly disagreed respectively that they were dissatisfied with the overall services delivered in the group. However, all the respondents strongly disagreed that they were very dissatisfied with the services delivered in the group. Even though the group is not the library in itself where users come to for their information needs, it is a tool that supports the library's goal of satisfying users' needs. This is evident in the words of Aina (2004) who states that library users are the focal point of all library and information services, as the library primarily exists to satisfy the user.

**Table 6: Satisfaction**

| Overall satisfaction | Strongly Agree | Agree | Disagree | Strongly Disagree |
|---|---|---|---|---|
| Very satisfied | 38(77.6%) | - | - | - |
| Satisfied | 11(22.4%) | - | - | - |
| Dissatisfied | - | - | 18(37%) | 31(63%) |
| Very Dissatisfied | - | - | - | 49(100%) |

## Conclusions and Recommendations

The findings of the study and other literature reviewed show that Facebook is a good platform for information service delivery. Facebook, as exposed in the study, proved to be a professional tool for marketing the library, communication across staff and patrons, and rendering information service.

The results of the study show that creating a Facebook group where librarians meet with themselves and with other patrons is of great importance as it creates a convivial atmosphere for all forms of library and information communication, and delivery of all forms of information service, irrespective of members' designation and location. The results also show that apart from extraneous hindering factors which may be particular to individual members of the group, or beyond the group's administrators' help range, a Facebook group can be a very appropriate arena for dissemination of high quality information, and the group can be a surrogate classroom, library or information centre.

Taking the following about Facebook into consideration – its striking usage statistics, phenomenal growth rate, impressive popularity, amazing multilingual feature, interoperability with several technological devices, usability for library and information services, and above all, its "create-a-free-account" characteristic, libraries should wake up from their slumber and embrace this new level of awareness creation, communication, marketing, and service delivery that Facebook has brought about.

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