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Research Publications in Library and Information Science (LIS) in Nigeria: Publishing to the Wrong Audience?

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Abstract

Library and Information Science (LIS) research in Nigeria span over five decades. However, despite these decades of LIS research and education in Nigeria, problems continue to plague the development of the profession in Nigeria. This paper is a comparative study of Nigerian LIS researched articles published in foreign and local LIS journals. An analysis of LIS researched articles, as contained in the online version of Library and Information Science Abstracts (LISA), Library Literature (LL) and Information Science Abstracts (ISA), from 1968 to June 2002 was carried out in order to compare LIS research publications about Nigeria by Nigerian authors that were published in foreign and Nigerian journals. The results show that a majority of the authors published in foreign LIS journals since the early 1980s till date. Owing to the difficulty encountered in accessing foreign journals in Nigeria, publishing Nigerian LIS research in foreign journals deprives the nation of the benefits of utilising these research results for the solution of LIS problems in Nigeria. The practice of Nigerian researchers publishing in foreign journal titles is examined and the problems associated with local access to these foreign journals and its implications on the growth of the LIS profession in Nigeria are highlighted. Suggestions are provided to encourage local publishing of LIS research in Nigeria.

Introduction

Research results could be used to effect change, inform an opinion or belief, confirm or establish a theory. Although research results can have universal application, they are intended primarily for an audience that is most affected by the problem investigated and to whom its outcome will be most applicable.

Research in LIS has been undertaken in Nigeria since the colonial era. At the beginning it was carried out mainly by the expatriate librarians. However, with the establishment of the Institute of Librarianship, University College Ibadan in 1959, now the Department of Library, Archives and Information Studies (LARIS), University of Ibadan, in the Faculty of Education, University of Ibadan, the development of librarianship in Nigeria blossomed and a sizeable number of Nigerian librarians were produced. The research capacity of local librarians improved and many research publications emanated from local librarians. The Ibadan library school now offers programmes at various levels of training including diploma, bachelor, masters and doctoral degrees. Since then, many library schools have been established in Nigeria, many of them are offering diploma, bachelor, and masters degrees. A few of them like Ahmadu Bello University, Zaria, University of Nigeria, Nsukka and Delta State University, Abraka offer doctoral degrees. To date, there are about 10 library schools in Nigerian universities and polytechnics.

LIS researchers in Nigeria have turned out a huge amount of literature since its early days from the late 1950s. For example, in the 1960s, Oyeoku (1966) examined the role of university libraries in Nigeria while Fadero (1968) investigated the problems of library development in Nigerian primary schools. Dean (1969) investigated the objectives of college and school libraries in Nigeria. Lastly, Ogunsheye (1969) explored the problems of bibliographic services in Nigeria. These research papers were published in Nigerian journals and their results and recommendations were easily accessed and utilised for the solution of problems addressed by these research efforts. Within the next decade, published research reports on education, library and archives administration, information technology, information science, bibliography, LIS professional association, and technical services, to mention a few, were visible. These investigations were not without salient suggestions on the development of LIS in Nigeria. Unfortunately, these results, suggestions and recommendations aimed primarily at Nigerians were published abroad or delivered to foreign audiences at international conferences, workshops and symposia. In order for the primary users of these research outcomes to have access to foreign journals in Nigeria, they have to contend with the foreign exchange component involved in purchasing journals published abroad, which many Nigerian libraries cannot afford. Therefore many of these research publications were not accessed by local users. The publications are only accessible to foreign audiences who have comparatively little or no use of them.

This paper examines the practice of publishing Nigerian-based LIS research by Nigerian researchers in foreign titles, the problems of local access to these research publications not published locally and the implications on the growth of LIS profession in Nigeria.

Suggestions are also given to encourage local publishing of LIS research on Nigeria in local and national journals.

LIS Research and Publishing in Nigeria

Faculty strength and LIS research efforts of library schools in Nigeria have risen over the years with increase in the number of accredited library schools in Nigeria. Also, LIS practitioners who are interested in research and publications have continuously contributed to LIS research on Nigeria. These developments have combined to build a virile LIS research contribution in Nigeria.

In their study, "Research and Publication Patterns in Library and Information Science", Aina and Mooko (1999) provided an insight into LIS research efforts in Nigeria. Their study analysed 294 publications from 34 top African LIS researchers and authors between 1990 and 1995 listed in *Library and Information Science Abstracts*. Part of the result of this study is quite relevant to most of the issues raised in this paper. They are summarised thus:

- Most of the top researchers in Africa are working in Nigeria and South Africa
- Majority of the research investigations conducted in LIS in Africa are descriptive or opinion papers (60%)
- Most of the papers are geared towards national issues (43.9 %)
- Professional education is the most researched subject (36%)
- Only one journal out of 262 journals analysed is published in Nigeria.

Many studies have revealed that Nigeria plays a leading role in LIS research in Africa. The strength and scope of library education in Nigeria account for the enviable height that Nigeria has attained in LIS research in Africa. Issues in LIS education in Nigeria form a major aspect of concern to LIS researchers in Nigeria, who, incidentally, are directly involved as LIS educators. As national issues are of greatest importance to LIS researchers in Africa, solutions proffered are national and should be implemented by citizens of the respective countries where research problems are identified and investigated. Evidently, national and general LIS issues in Nigeria are published primarily in international journals and predominantly foreign audiences. The Nigerian LIS educator or education planner, researcher, student, practitioner and administrator has

to pay dearly, not only in hard currency to access published results of research conducted on national issues, but also, there is the time-lag between when a journal article is published and when it is accessible to the home-based Nigerian LIS professional.

From the international point of view, research results from Africa and other developing countries have little impact on the development of LIS in Europe and America which are more advanced socio-economically, politically, educationally and technologically. Most Nigerian research reports are of little application in those parts of the world. This is evident in the high rejection rate of Nigerian articles sent for publication in foreign journals (Cronin and McKenzie, 1992). Although, occasionally, some nationally researched problems may have international application. However, given that national research should primarily benefit national issues, and that LIS research results from Nigeria are most likely to be published in foreign journals that are hard to come by, it is evident that Nigerian LIS researchers might be publishing for, or to, the wrong audience.

Methodology

An analysis of the online version of *Library and Information Science Abstracts* (LISA), *Library Literature* (LL) and *Information Science Abstracts* (ISA), from 1968 to June 2002, was used to track library and information science (LIS) research works on Nigeria, published in foreign and Nigerian journals. Research works used for this paper included researched and feature articles, book chapters, and conference papers. LISA, LL and ISA were used for this study because of their international coverage of the field. The web version of LISA, LL and ISA were used in this study and are available on the web through DIALOG. A search for the keyword: *Nigeria* was done from the selection of these three databases- LISA, LL, and ISA from 1969 to July 2002. Duplicates in the initial search results were excluded using the *remove duplicates* function of Dialog. The remaining records were displayed full and sorted according to their dates of publication. Also, each record was examined to ascertain its place of publication. Year and place of publication of listed research works were included in the analysis.

Findings

After excluding duplicate records, 1, 969 records were left. The analysis of the 1,969 publications showed that all publications retrieved were relevant to the field of LIS in Nigeria, justifying the use of Nigeria as a keyword for the principal search in data collection. The records were analysed based on year of publication, and then cumulated ten-yearly. The number of publications in each year was delineated into foreign published

works, and works published in Nigerian journals. Their percentages to the overall number of publications for the year were used to indicate the ratio of foreign to Nigerian published works. Table 1 provides the details of publications distribution for the period under review. The data analysis reveals that between 1968 and June 2002, out of the 1,969 published articles identified in the sources used for this study, 1,481 (75%) were published in journals abroad, against 488 (25%) published in Nigerian journals.

Table 1: Foreign and Nigerian Published Articles Distribution from 1968 to July 2002

Period	Total articles published	Number of articles published in foreign journals	Proportion of articles published in foreign journals (%)	Number of articles published in local journals	Proportion of articles published in local journals (%)
1968 - 1969	20	1	5.0	19	95.0
1970 - 1979	374	142	38.0	232	62.0
1980 - 1989	732	598	81.7	134	18.3
1990 - 1999	722	640	88.6	82	11.4
2000 - 2002	121	100	82.6	21	17.4
Total	1969	1481	75.2	488	24.8

Discussion

The analysis of the data gathered in this study shows that prior to 1980 most of the published works of Nigerian LIS authors were published in Nigerian LIS journals (see Figure I). Between 1968 (when most articles published were in Nigerian journal titles) and 1979, out of 394 articles listed in the sources used for this study, 143 (36%) were published abroad while 251 or (64%) were published in Nigerian LIS journals. However, this trend was not to last. From 1980 to July 2002, there was a downturn in the number of LIS articles published in Nigerian LIS journals by Nigerian authors. Of the 1575 articles identified within this period, only 237 (15%) were published in Nigerian journals. The rest 1,338 articles (85%) were in foreign journal titles. One may attribute this change to the economic downturn that was witnessed in the country in the early 80s. There was also a high mortality rate of West African and Nigerian journals at this time. Alemna (1998) provides an insight into the colossal decline of West African journals in the 80s. Of the 17 journals listed in the study from 1968 to 1995, only three were still being published as

at 1995. Out of the three surviving journal titles two were irregular. Only the *African Journal of Library, Archives and Information Science* (AJLAIS) has been regularly published since it was established in 1991 and it is still being published regularly. This marks AJLAIS as the most visible and regular African published LIS journal. It is important to note that most of the journal titles in Alemna's study are Nigerian. Hence, the dearth of LIS journal titles in West Africa, as indicated by Alemna's study, is the direct consequence of the negative developments on the Nigerian LIS scene. With the dearth of LIS journals in the late 70s and early 80s, research publications of Nigerian LIS authors started appearing in foreign journal titles (see Figure II). This practice got to a peak in 1987 when 137 (99%) of Nigerian authored LIS articles were in published foreign journal titles. Gradually, it became the trend for Nigerian LIS professionals doing research to publish their articles in foreign journals. A Nigerian LIS author was found to have published in *Pakistan Library Bulletin* amongst other obscure foreign titles. Eventually, the notion that articles published in 'international' journals should be more recognised in academic circles for promotion and recognition began to be rooted in LIS circles in Nigeria. Although there may be legitimate reasons to believe that LIS articles published in foreign journals are good ones, it is not clear how publishing Nigerian LIS research projects abroad encourages the overall development of LIS in Nigeria. This is more so when the costs of acquiring foreign journal titles in Nigeria are considered prohibitive. Publishing abroad then became the order of the day to the detriment of already bruised Nigerian LIS journal titles. Foreign journals have continued to dominate Nigerian titles in terms of LIS researched publications till date. The negative implications of this trend cannot be overemphasised. Although some Nigerian published journal titles, especially LIS titles, have found presence online, having access to them remains a mirage for most of those who require such access- its primary audience in Nigeria. Ajibero (1995, 2000) and Mohammed (2000) provided an insight to the various problems of IT use and web access in Nigeria. These problems, which include poor infrastructure and lack of trained manpower, continue to hinder web access especially to foreign journals online. For instance, the telecommunication system in Nigeria is still inefficient despite the privatisation efforts by the present regime that has only increased the telecommunications network very marginally.

Why Publish Abroad?

Publishing LIS research efforts abroad has been a practice noticeable from the early days of librarianship in Nigeria. This practice has escalated that it has become a cause for concern to the development of the profession. Many reasons have been adduced for the choice of LIS researchers in Nigeria to publish abroad. Alemna (1998) noted that LIS

authors from West Africa think that they will gain international recognition from publishing abroad. Another reason has been that in LIS academic circles, promotion is seen to favour those who have published with foreign-based leading journals. According to Ochai and Nwafor (1990), there is an assumption that local journals cannot publish works of intellectual consequence.

Furthermore, the high mortality rate of library and information science journals in Africa is a likely impediment to local publishing of LIS research in African countries including Nigeria. In a survey of the mortality rate of LIS journals in West Africa from 1950 to 1995, Alemna (1998) provided a rather gloomy picture which shows that of all the Nigerian LIS journals listed, only one – *African journal of Library and Information Science* (AJLAIS) is published regularly. Others are either irregular or have ceased to exist. This scenario still obtains in Nigeria considering the number of Nigerian LIS journals indexed in LISA, LL and ISA as indicated in the data collected for this study.

Another reason often adduced for publishing abroad is that research results found in foreign published journals have the tendency of being abstracted an indexed by international indexing and abstracting agencies. This is a service that most local journals could not benefit from as they are published irregularly. Also, a case is made against local journals for the subjective and lackadaisical manner in which the editors assess papers sent to them for publication. The views of these authors are that editors often keep the articles for a long time before they decide if they are publishable or not. Apeji (1990), and Azubike, Adeyomoye and Okojie (1993) echo these allegations.

Foreign Publishing: Implications for LIS Research in Nigeria

Although the reasons that have been adduced for LIS researchers preferring to publish abroad seem salient, there is a need to explore the implications of publishing Nigerian LIS research results abroad on LIS development in Nigeria. Research results could have universal application, but primarily, they are intended for an audience that is most affected by the problem investigated and whom its outcome will most appropriately be applicable to. The basic reason for LIS research in Nigeria is to investigate LIS problems affecting the profession in Nigeria with a view to finding solutions for these problems. LIS research results from research works on Nigerian issues therefore should be targeted first to Nigerian audience who can act on the outcome of these research efforts to improve the profession in Nigeria.

Publishing the results of a LIS research project that has solutions for obvious local problems in foreign journals and conferences will not benefit LIS development in the country. Although international recognition is important for Nigerian LIS researchers, this should not be the primary aim of publishing their scholarly works. There is need for emphasis to be placed more on the utilisation of the research effort in solving LIS problems in Nigeria. International recognition and personal aggrandisement should be secondary.

Publishing abroad is not without problems. Studies have shown that there is a high rejection rate for articles submitted by Nigerian authors to foreign journals for publication (Rooke, 1983). Several important research results of immense value to LIS development in Nigeria are rejected and never published by foreign journals due to their local application. The findings of a study by Cronin and McKenzie (1992) show that from the analysis of 101 manuscripts rejected by the journal between 1981 and 1989, twenty-one were from Africa with Nigeria accounting for seventeen of these articles. This is an indication that several research efforts by Nigerian LIS researchers could have been wasted as the articles were never published by foreign journals.

Even when Nigerian articles make it to foreign journal pages, there is the problem of obtaining these journals locally for local audiences. Salaam (2001) investigated access to serials collections in four Nigerian universities and found that cost constraints provide adverse impact on the ability of these universities to provide reasonable serials collection for their users. The study further stated that Nigerian universities depend on foreign journals to support research; but the cost of these journals are prohibitive and can not be afforded by these universities. This shows that even though few Nigerian articles are eventually published by foreign journals, having access to these journals is difficult due to financial constraints to purchase them locally. Apart from the cost of these journals, which Nigerian libraries can hardly afford, sometimes there are delays in subscriptions and supply to the libraries.

Publishing online and electronic versions of internationally published LIS journals are now the norm. Having access to these publications require subscription costs that are prohibitive by Nigerian standards, as a result of the downturn of the economy over the years. Afullo (2000) discussed these problems noting that the lack of Internet connectivity and telecommunications infrastructure in African countries is an impediment to global information exchange and utilisation by African countries, Nigeria inclusive.

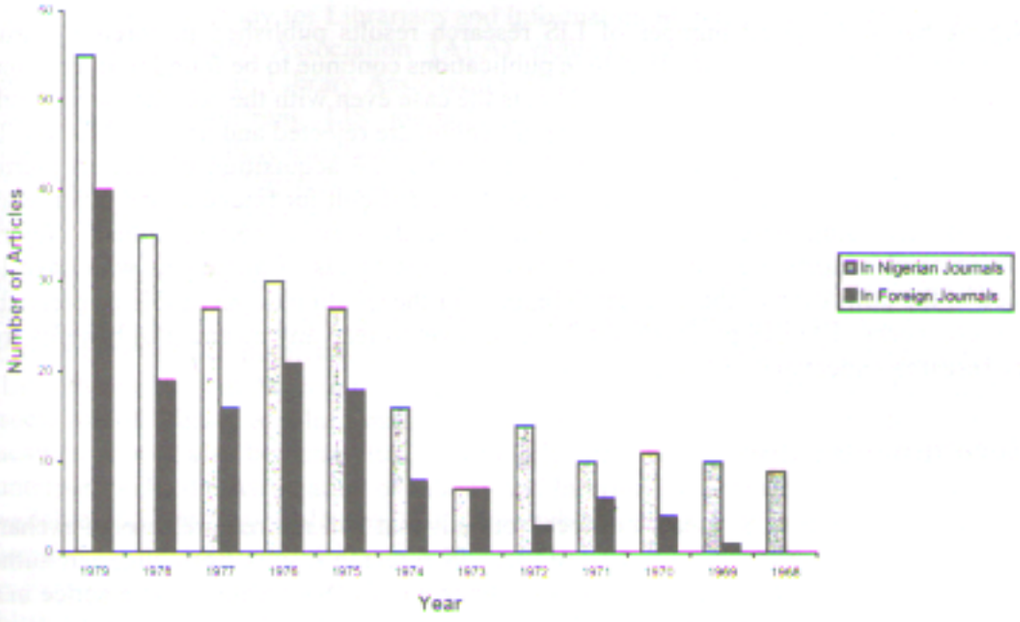

Figure I: Distribution of Nigerian LIS Articles Published Between 1968 and 1979

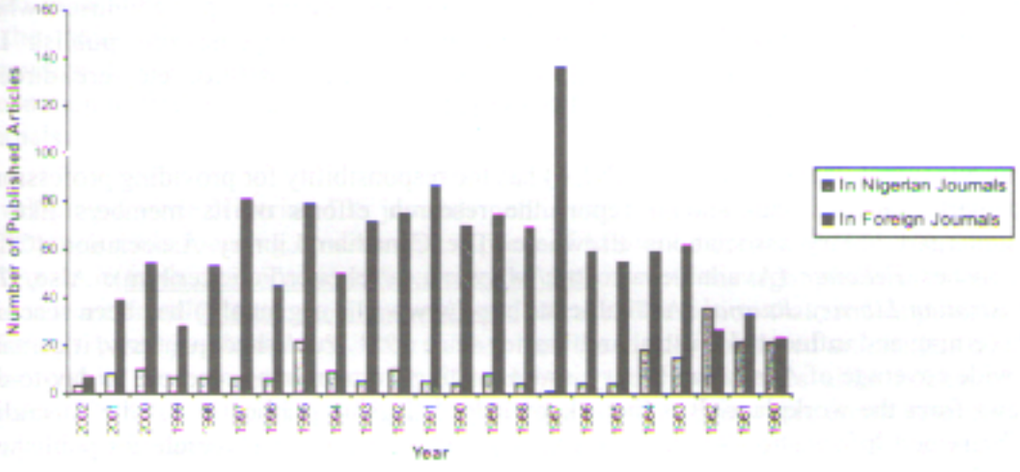

Figure II: Distribution of Nigerian LIS Articles Published Between 1980 and July 2002

Conclusion

Nigeria has the highest number of LIS research results published in foreign journals (Alemna, 1998). Majority of LIS article publications continue to be found in international journals as opposed to local journals. This is the case even with the fact that several other such articles sent to foreign journals for publication are rejected and never published. The literature of librarianship continues to indicate that the acquisition of foreign journals locally by libraries and individuals continues to be difficult for financial and other related reasons. Accessing these journal articles electronically is even more herculean. Nigerian LIS research reports are therefore left mostly in the hands of audiences who have less need of the utilisation of these research reports for the solution of the problems prescribed in these works. The LIS profession in Nigeria is yet to reap any meaningful benefits from the research endeavours of its members.

Recommendations

Publishing Nigerian LIS research in local journals that will not require foreign exchange to acquire is desirable. This will ensure that LIS research results from Nigerian authors are readily obtained and utilised for the development of LIS education and practice in the country, and for the over all benefit of the society at large.

For a resurgence of LIS journals published in Nigeria, it might be useful to emulate practices in other countries around the world, especially the developed countries, where various LIS professional and academic institutions and organisations publish LIS journals. In such countries, national libraries, archives, museums, etc, are directly involved in the publication of notable LIS journals.

The Nigerian Library Association (NLA) has the responsibility for providing professional scholarly journals that should report the research efforts of its members like its counterpart library associations elsewhere. The Canadian Library Association (CLA) publishes *Feliciter* (Available at: http://www.cla.ca/feliciter/Feliciter.htm). Also, *The Australian Library Journal* (Available at: http://www.alia.org.au/alj/) has been reaching discerning and influential Australian libraries since 1951. Published quarterly, it contains a wide coverage of Australian library issues ranging from ongoing research to day-to-day news from the workplace. It is the acknowledged flagship publication of the Australian Library and Information Association (ALIA), and an appropriate vehicle for publishers, suppliers and services wishing to reach the decision-makers in Australia. *Journal of*

Librarianship and Information Science (JOLIS) (Available at: http://cilip.integra.co.uk/) is a quarterly journal published by the Library Association UK. Library Association is the leading professional body for Librarians and Information Managers in the UK. In the US, the American Library Association (ALA) publishes *Information Technology and Libraries*. The Nigerian Library Association (NLA) can emulate these national library associations by publishing LIS journals of international standing communicating, primarily, Nigerian LIS research reports. The NLA also needs to support and ensure the regular publication of *Nigerian Libraries*, its journal. Other state chapters of NLA and Nigerian library schools need to do the same.

Aina (1991) and Alemna and Badu (1994), in separate analyses of LIS publications in four journals, 1985-1989 and 1990-1992 respectively, confirm that Nigeria has the highest number of LIS publications from Africa. This is owing to the relatively high level of LIS development in Nigeria in comparison with other African nations. The Nigerian Association of Library and Information Science Educators (NALISE), as a body of LIS educators, should also be committed to scholarly LIS publication in Nigeria. In US, its counterpart body, the Association of Library and Information Science Education (ALISE) (Available at: http://www.alise.org) is responsible for the publication of *Journal of Education for Library and Information Science* (JELIS) (Available at: http://www.alise.org/publications/jelis.shtml). NALISE should emulate ALISE and publish a scholarly LIS journal.

The National Library of Nigeria and the National Archives cannot be excluded in any effort to support LIS scholarly publications in Nigeria. As the apex library and archives in the nation, the National Library and National Archives should get involved and encourage LIS research and education by financing scholarly journals. It is not uncommon to find national libraries or archives around the world that publish academic journals.

Developing a virile Nigerian LIS journals publishing system that includes a number of different journals focusing on divergent aspects of LIS will stop useful Nigerian articles ending up in trash cans abroad and provide the authors with the right platform to report their research results to the most appropriate audience. The notion that articles published in foreign–based journals are of better quality than the locally published articles has taken deep root in the consciousness of LIS academics and practitioners alike (Ochai and Nwafor, 1990). Thus, articles published abroad are usually given more credit in terms of recognition and promotion of librarians in academic positions. This stance is due for an

objective reappraisal. There is little or no evidence to prove that locally published LIS articles in refereed local journals are inferior to the ones published in foreign journals.

Articles in locally published LIS journals should be given equal credit with those published outside the country. Rather than having Nigerian LIS articles rejected by foreign journals, it is time to encourage the development of the local LIS publishing scene by recognising locally published articles. Also, local LIS journal editors, who sometimes serve as editorial board members of foreign journals, ought to step up quality control of articles in local journals to ensure that they are of international standard.

Finally, the 'publish-or-perish' syndrome by which practising librarians in academic libraries and LIS educators have to publish articles just for their promotion purposes does not make any positive contribution to LIS development in Nigeria. The fact that a majority of work published by LIS authors from Nigeria are descriptive show that rather than published researched findings, Nigerian LIS authors are just publishing so as not to perish. In the words of Alemna (1998), "there is no doubt that descriptive research can be very useful, however, the preponderance of this type of research does not suggest an aggressive approach to the profession." Alemna suggested that LIS professionals should be more involved in empirical research. LIS authors in Nigeria should begin to do empirical research and should find local journals to publish their results. LIS professionals based in Nigeria and abroad should support local journals by contributing articles of direct relevance to situations in Nigeria to locally published journals. Eventually, a virile LIS research publication scene would emerge in Nigeria and LIS research results from Nigeria would be available to those who will maximally utilise such results for the development of the profession in Nigeria.

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Public Sector Records Systems in Ghana: Some Lessons in Development Management

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Abstract

The origins of the decline and the revitalisation of the National Archives of Ghana go a long way back. Its near collapse to a large extent was self- inflicted. The result was a progressive deterioration in the management of recorded information, key to the efficiency and effectiveness of government. This article argues that the Ghana Records Management Improvement Programme subsequently introduced as part of the initiative to strengthen the civil service marked a paradigm shift in the development management strategies of Ghana. Restructuring the records management systems of government was crucial for improving the efficiency of development management interventions.

The strengthened National Archives has been transformed into a department exercising a wider remit. New systems and procedures have been put in place to provide a sound records management programme. Unable, however, to address the management of financial records alongside records of other sectors, public financial management has remained weak due to the unstructured and poor state of the existing financial records systems. This remains so despite the several policy measures introduced to strengthen financial management.

Introduction

To facilitate its development management objectives, the Ghana government initiated programmes to reverse economic decline and establish a proper climate for economic growth in 1987. A market friendly set of incentives, designed by the government and bi-

lateral agencies to encourage the accumulation of capital and more efficient allocation interventions and management of resources set the stage for the introduction of a market economy. In order to broaden and deepen the adjustment process, institutional reform was introduced to achieve:

- organisational restructuring and strengthening measures
- regulatory and procedural reforms
- sector policy and planning capacity building (Paul, 1989).

Development management intervention focused in large measure on the civil service. The Ghana civil service is the executive arm of government responsible for the administration and execution of government policies. It is the main, but by no means the only instrument of public management.

In the short term, the objectives of the reform of the civil service involved cost containment measures. In the medium term, the reform emphasised strengthening of personnel management. The main components of both short and medium-term programmes were:

- personnel policy and management
- incomes policy and salary administration
- management services
- labour rationalisation
- training and manpower development
- integrated payroll and personnel database management
- records management improvement (Government of Ghana, 1994).

The provision made in the reform programme for records management improvement marked a shift in the development management strategies of Ghana. In fact, the recognition by governmental authorities that public records systems are a critical success factor in the performance of government marked a paradigm shift in a large sense.

Crisis of Governance

The Ghana Records Management Improvement Programme introduced in 1991, was the only one of its kind among the fifty-seven World Bank supported operations in twenty six sub- Saharan African countries (Dia, 1993). This article argues that in Ghana as in any sub-Saharan African country, restructuring of the records management systems of government is crucial for improving the efficiency of development management interventions. The article further argues that had the programme been introduced earlier

and had a wider remit it would have enhanced public financial management. As pointed out by Barata et al (1998):

> Improving financial management is primarily a technical matter, yet the success of any reforms ultimately depends on the demand for and provision of accurate, relevant and timely financial information.

Thus, unable to address the management of financial records alongside records of other sectors, the overall ability of government to manage the consolidated fund has remained weak due to the very poor and chaotic state of the existing paper-based financial records systems. This remains so despite the several policy measures introduced to strengthen financial management. These measures are not sufficient to keep changing paradigms without dealing with the basic element, financial records, etc, which must underpin the financial management processes.

The weakened state of the financial records systems has implications for development management. These include impediments to efficiency enhancement and obstructions to the process of introducing accountability and transparency to the financial management functions of government. Recorded information is a crucial source of variable evidence, which is essential to accountability and transparency.

For a combination of structural and policy-based reasons, the Ghanaian economy suffered a serious decline in the 1970s and 1980s. The public sector provided poor quality service which resulted in massive corruption and waste. In an environment charaterised by the arbitrary application of rules and regulations, the state apparatus came close to collapse. Under these circumstances, greater urgency and significance had to be attached to development management interventions in such areas as institution building and government strengthening. At the same time, however, the civil service was ill- prepared and too demoralised to take on the implementation of any major government programmes.

There were two significant developments underlying the decline of the national economy. Firstly, there was the collapse of the basic information management infrastructure and secondly, the ineffectiveness and the lack of direction of the national public administrative system. The collapse of the government records systems meant the collapse of the evidence base that underpins public operations and provides continuity between the past, present and the future. Managers could not be guaranteed access to accurate, reliable and timely information with the result that the information required to inform the content of public policy was soon not available.

The implementation of policy includes developing, introducing and sustaining policies. Sustainability depends, in large measure, on correctly anticipating likely public and political impact. In the absence of information as a basis for decision–making, government after government was unable to judge the political barometer. These weaknesses contributed to the unstable political environment characterised by a spate of coups. Against the background of the collapsed records systems and the difficult political environment, the national public administrative system lost direction and ceased to be an effective force. Thus, the failure to manage government's recorded information contributed in undermining the state's capacity to manage the economy.

A former Ghanaian Minister of Education observed that:

> The major contributing factor to gross inefficiencies and lack of continuity in the policies, procedures and measures of many African states is not, as commonly supposed, frequent changes in governments, but bad management of records (People's Daily Graphic, 1989).

This view is reinforced by Obeng-Adofo who points out that the collapsed records systems meant that Ghanaians could not be protected from the effects of capricious decision-making (Obeng-Adofo, 1991). The economic and social cost of this decline has been undeniably high. The most significant is that this tragedy has shaken the public confidence of citizens in their government. Given the benefits of recorded information to the efficiency of government, how does one explain the progressive deterioration in the culture of record keeping?

The National Archives of Ghana

The National Archives is the main specialist archival institution in all countries responsible for managing public records and for ensuring that the most important are preserved as historical records. Archives are a resource that contribute to peoples' understanding of themselves and their identification together as a nation and society.

The establishment of an archives infrastructure did not begin until 1946. From an archives office in the old Secretariat Building, Akita, the Chief Archivist from 1949 to 1976 pioneered the programmes of the agency ahead of all British African dependencies. Ghana had a fully-fledged functioning national archives by 1955. The promising start made in archival development was rewarded by the establishment of the UNESCO and

UNDP sponsored Regional Training Centre for Archivists in 1976. Ghana was chosen because of the achievements of the National Archives and the good teaching facilities available at the University of Ghana, Legon (UNDP, 1981).

In spite of the effectiveness of the National Archives in the early years of its establishment, by the late 1970s it was at the verge of collapse. While the national economy had begun to decline from the 1970s, patrimonial and development norms adopted led to the weakening of control structures and operating procedures of government. These factors, as well as the lack of vision on the part of the National Archives, placed it in a position where it could no longer carry out its mandate.

Systems and Structural Weaknesses

The origins of the decline and ineffectiveness of the National Archives go back to the legislation which authorised the creation of the Department and spelt out its mandate. The Public Archives Ordinance was rigid in the definition of its archival functions. Demarcating the transitional boundary between records management and archival administration, the law ignored the fact that the stages in the life of a record do not constitute distinct and separate entities.

Records management and archives administration are one field unified through the life cycle concept. Yet the National Archives did not play a meaningful pre-archival role. It nonetheless had the right to examine the records creation, maintenance and disposal practices of public agencies which it did not exercise. The right of inspection is defined as:

> The legally imposed responsibility of an archives or a records management programmme to inspect and propose measures to improve the records creation, maintenance and disposition practices for operating agencies within its jurisdiction (Bellardo and Bellardo, 1989).

Had the National Archives operated this mandate, it could have given advice and assistance to public agencies. Instructions could have been issued to government agencies for the safe maintenance of their records and provision made to enforce the measures proposed.

While new functions were not reflected in file classification, the absence of skilled registry personnel and the lack of supervision of registry practice contributed to the decline in the effectiveness of government-wide registry systems. The National Archives itself had been operating without a coherent management system or modern professional procedures. A victim of organisational juggling, its placements in the government machinery kept on changing. The archives' placement in the government structure can enhance or constrain it in carrying out its mission (Wilsted and Nolte, 1991). For instance, its position affects the:

- capacity of the archives to carry out its mission
- level of financial and programmes support for the archives
- commonality of purpose between the archives and the ministry supervising it.

Placement can be all-important in gaining the necessary recognition and resources. An archives service involved in a whole range of records management activities must be placed under an office which exercises a degree of inter-ministerial or supra-ministerial authority.

Limited by its mandate and unwilling or unable to play a meaningful role in the management of the records life cycle, the National Archives found itself placed under ministries which were not interested in its functions. To a large extent, its near collapse was self-inflicted. Could it meet public expectations of its role when its holdings comprised records created principally during the colonial period? Researchers had reported the pitiful conditions of finding aids, some of which had their pages torn or missing. Writing in *West Africa*, Bentsil-Enchil (1991) observed that the National Archives was "neither conserving their holdings nor growing as fast as they should." The net holdings, he pointed out, "are decreasing as a result of the combined effect of decay, loss and theft." Its overall performance in the 1980s was lower than in 1962/63. This productivity undermined its role in government. The entire approach of the National Archives to meeting its mandate was unconvincing. Notwithstanding the narrow interpretation of its mission, documents crumbled at a mere touch and microfilms, through lack of care, simply melted away (IRMT, 1994).

Age of Reform

Government's failure to develop strategies to maintain the information required to formulate public policy and ensure effective programme delivery had denied it benefits key to the competitive success of the nation. In the late 1980s, as part of development

management interventions, Department for International Development (DFID) of UK sponsored a review of registry systems in the Ghana civil service. The study, conducted in July and August 1990, provided a depressing picture of the state of the government record systems (IRMT, 1990).

Other developments helped to focus attention on the state of government record systems. A Coopers and Lybrand study in 1985 on establishment controls in the civil service had drawn attention to the lack of usable data available for policy analysis (Robinson 1989). Again in 1987 and 1988, reports of programme consultants seeking to develop a manpower database for the civil service pointed to the difficulties in compiling job inspection baseline data. The consultants related their difficulties to government-wide poor state of record keeping (Robinson, 1989).

Two workshops alerted the Government of Ghana to the scale of the records management problem. In August 1989 and September 1990, two regional workshops on the management of public records, organised by the Association of Commonwealth Archivists and Records Managers (ACARM) and sponsored by the Commonwealth Secretariat, were held in Accra. Massive backlogs of inactive records were cleared from prime office space in eight ministries. An intermediate records centre was established for the transfer and accessioning of records of continuing value. Three million files in excess of current requirements in the eight ministries were processed (IRMT, 1990).

The workshops provided hands-on experience in the management of inactive records for participants who were drawn from all over English–speaking Africa and elsewhere in the Commonwealth. The workshop recommended to government the necessity of logically organising public records at the point of creation within a system that allowed disposal decisions to be made at each phase of the records life cycle as appropriate. Only in this way would the quantity, usefulness and integrity of archival materials be protected (ACARM, 1989).

Following these workshops, government set out to restructure the public sector records systems. The objective of the records system restructuring was to transform the National Archives into a department exercising a wider mandate. Four interlocking sub-programmes had to be addressed. These were:

- restructuring registry and records services

- compiling and implementing disposal instruments for common categories of records and for specific records services ministry by ministry
- establishing intermediate records centres for the storage of semi-current records
- reviewing the structure, organisation and operating systems of the National Archives to enable it to develop a wider remit.

In strengthening the National Archives, the project objective was to prepare it to take responsibility for managing administrative and historical records through unifying the active and inactive stages of the records life cycle. It is only through a lack of understanding of this unity between records management and archives administration that an organisational structure could split the record-keeping functions of government. Furthermore, the design of record- keeping systems must depart from the rigid separation of the functions of the records manager and archivist based on the phases of the record life cycle. Thus, the unified approach has been one of the most fundamental and far-reaching contributions made in the records management improvement project design.

The operation of restructured registries, new records centres and reorganised archives repositories require technical capacity (skills, methods, systems and technology). The training and retraining programmes of personnel have commenced and there has been a focus on improving institutional capacity. The effectiveness in capacity building will determine the Department's ability to meet the information needs of government and the public. The triad of good policy framework, good institutional development and good leadership provide effective performance and sustainability. Good leadership must be the starting point, while good institutional development will provide that essential link between leadership and policies.

An important element in the programme is the new legal framework for the management of public records throughout the records life cycle. *The Ghana Act 535 - The Public Records and Archives Administration Department Law* replaces and supercedes the Public Archives Ordinance. It provides authority to redirect records management and archives administration from the rigid division that characterised professional activities. Most fundamentally, it acknowledges the life cycle as the framework for records control. The law assumes a basic level of records and archival development and therefore tends towards detailed prescription.

The major components of the project and the terms of reference of the assignment have been met. Systems and procedure have been put in place to provide a sound, systematic records management programme which has the capacity to control both the quality and quantity of records created in the restructured ministries.

With the new systems, management regulatory functions have been strengthened. Internal regulations are presently underpinned by evidence of compliance. The result is that mechanisms are available for an enhanced operational efficiency of the civil service. Until this reform, records management was a poorly recognised regulator. As the authority for regulating record- keeping compliance, the National Archives has had too narrow a remit to enforce government-wide responsibilities.

Conclusion

Never before in the history of Ghana has the management of public records received so much attention from Government. Under its development management reform initiatives, Government provided restructured record- keeping systems and a new legal authority on which record keeping is based. The primary requirement of the law is that the Department establishes and maintains an active, continuing programme for the efficient and economic management of public records.

Fundamental to development management objectives, the new records legislation recognises the importance of public records as the evidence base of government and an instrument of accountability by the government to the people. It recognises that records have context, structure, as well as content. They are time bound and cannot be altered in any way without creating new records. Furthermore, it recognises government records as an informational resource for effectiveness and efficiency in government and as the basis of preserving the patrimony of the nation. The challenge is to systematically extend the benefits of reform throughout the public service.

Restructuring of government records and information systems is critical and reform of the financial records systems must not be overlooked. In particular, financial and personnel records, two areas yet to be covered, are vital resources for the management of the national economy and they must be managed strategically. Seventy per cent of the charges on the recurrent budget are allocated to the payment of personal emoluments of public sector employees, hence mismanagement of personnel information has major financial implications.

Paper-based records systems must be restructured in line with the computerised programme. Not only will this provide reliable source data for the financial and personnel databases but it will ensure the evidential value of the information held in the system. Without source data, the database projects cannot be maintained in the long term.

At present, the accountability for the management of finapcial records is poorly defined. There are no codes of instructions nor structured systems for financial records management in Ghana. This situation is manifested in inordinate delays in producing annual accounts and the practice of presenting multi-year financial reports. As a result of the lack of structures and systems for controlling financial records, transparency and accountability is at risk. Similarly, evidence of compliance of internal government regulations are disorganised and possibly lost.

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The Use of the Intranet and Internet by Teaching Staff of the University of Zambia

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Abstract

The use of the Intranet and Internet among academic members of staff at the University of Zambia was surveyed using a questionnaire. The findings revealed that the University had a well-developed network for both Intranet and Internet that was established to foster communication and access to both internal and external information. The paper concluded that there are some bottlenecks to the full use of the network. There is potential for full utilisation of the networks on condition that a policy to integrate the networks and ICT in general university management and running was developed and implemented.

Introduction

The implementation of information and communication technologies (ICTs) has received widespread attention and to a recognisable extent, taken a central place in a lot of areas of personal and institutional management. According to Hafaied (1996):

> Reasonable integration of the new information and communication technologies into the processes of production and administration has given rise to new forms of work organisation, management and planning, which can help master the processes of production operations, control, quality control and information transfer and facilitate the process of adaptation to the ongoing evolution of the economic, social and cultural environment.

The same observation has been claimed and acclaimed worldwide in the management and delivery of education. This trend has been driven by the recognition of the facilitation that ICT seems to provide in the flexible teaching and learning approaches. Hafaied, in the same paper, has noted that "new ICT give rise to new modes of organising the educational environment at school and new concepts of the teaching process, and recasting of the roles played by the participants of the educational process."

According to Vasenin (1996), "information technologies of Internet, using audio, video and hypertext, provide for scientists, lecturers and students access to non-traditional sources of information at any point of the globe as well as to the means of data presentation and manipulation."

These benefits, however, depend on the effective application of the ICT. This in turn depends on investment and policies that promote the use of the technologies. They also depend on the availability of adequate staff to supervise, assist in the use, manage and maintain the technologies. An educational system relies on an effective integration of the environment and policies as well as personnel. As Plomp et al. (1996) put it, " a learning process is the result of both structural conditions derived from the learning infrastructure and personal characteristics of the actors involved, and the interaction." In order to use technologies effectively, the actors require positive attitudes and training.

Computers have been one of the most used types of ICTs. This is because of the developments in computer applications. Computers have evolved to the extent that they converge a number of functions that some technologies provide. For example, with sound cards, images and other facilities, one could listen to, and watch sound-based information and entertainment. In addition, networking has made it possible for computers to be connected locally in an institution or department to form what is referred to as an Intranet or internal network. At a wider scale, various networks have been interconnected worldwide to form what is referred to as the Internet. Such connectivity makes it possible for a person or institution to access and share hardware, as in the case of Intranet, and a wide range of information as provided by both Intranet and Internet.

The University of Zambia has over time suffered from inadequate funding and difficulties of management of the university arising from the need to expand as a way of attempting to meet the ever-growing demand for this level of education. The enrolment of the university has expanded greatly compared to the time of its establishment in 1966. However, the physical facilities of the University have not expanded at the same rate.

Due to declining national revenue (a consequence of a number of factors like the declining copper prices, inadequate allocations to higher education, etc.) the university has been particularly affected. As a result, a lot of services have suffered. These have included library and laboratory facilities. For more than five years, the University of Zambia Library has not received funding that would enable it to subscribe to journals (Simui and Kanyengo, 2000). Staff turnover has increased due to deteriorating conditions of service.

In recognition of some of these problems and its quest to provide the most flexible formats in the provision of scholarship, the University of Zambia conceived the Computers for Academic, Management and Administrative Support (CAMAS) Project in the mid-1990s. The goals of the project were:

(a) to improve the facilities available to academics, researchers and students through the University by making available computing power in all schools and units for teaching, research and learning;

(b) to facilitate the decentralisation of the management and administrative functions by a process of devolution of authority and responsibility to the operational centres, namely the schools and units so that they could take greater responsibility for their own work and programmes;

(c) to provide the administrative centre with the ability to monitor the functioning of the schools and units in the decentralised structure being adopted under the strategic plan;

(d) to facilitate the exchange of information with sister institutions in the region and the world at large; and

(e) to make the University more accessible to the Zambian public and the world at large.

In accordance with the University's strategic plan and in order to achieve these goals, each unit was provided with computers for both staff and students and a whole campus-wide network was established to enable communication throughout the University (University of Zambia, 2001). The CAMAS project came to an end in the mid-1990s. However, it had managed to acquire and install about 200 computers in one place for students to use and at least 10 computers in each school and directorate. Some schools got more according to the staff numbers. It was up to the individual units to find places or

come up with administrative arrangements on how the computers would be accessed and used. Some schools had central places to store the computers while others spread them out to departments. All the units were networked on fibre cabling. Through the network it was made possible for units to share printers, software and access the various information such as the library catalogue, student records, and shared software.

As a project, CAMAS aimed at facilitating the integration of computers through a network. The network was intended to facilitate internal University of Zambia communication through an Intranet and to facilitate external communication by linking the CAMAS network to the rest of the world through the Internet and via the central hub. Although the project came to an end, it was intended that the University of Zambia would continue to utilise the network in accordance with the above stated goals. It was up to the University to develop policies and ways of streamlining the network.

The University of Zambia Library has been one of the African university libraries that have been included in the Programme for the Enhancement of Research Information (PERI) under the sponsorship of the International Network for the Availability of Scientific Publications (INASP). Through this programme, the donors have paid subscription on behalf of the libraries to access some web-based journals for a period of time. This service requires that the universities have access to the Internet and have working networks. The University network was, therefore, going to provide a forum by which both staff and students would access such library services.

The University has managed to achieve two of the goals of the CAMAS initiative. Computers have been acquired and the University has created a campus wide network (the Intranet). Decentralisation of administrative functions has been implemented. However, the other goals depend on the degree to which ICTs have been put to use. The facilities available through the Intranet include software, students' records, library services and a range of information on the University home page.

This study was conducted to determine the usage of the University of Zambia network, the Intranet and Internet, in order to achieve the above objectives of the University of Zambia. The study attempted to establish what policies, if any, were in place to promote the usage of the networks and whether or not academic staff used the networks as expected in the design of CAMAS.

Methodology

One hundred and three teaching staff members were randomly selected for this study. They were chosen from seven out of the nine schools and thirty of the forty-five departments in the University. A total of 103 copies of a questionnaire designed for this study were administered by hand. The researcher physically distributed the questionnaire. A total of 37 copies were returned after a lot of follow-up and persuasion. This is a very low return rate of only 36 per cent of the sample and only 12 per cent of the total population. However, the analysis was conducted based on the assumption that 30 could be considered to be a safe number of respondents to detect a pattern (McCall, 1980). The completed copies were from 22 of the 30 departments selected and from all the seven schools selected for this study. The thirty-seven respondents comprised of three professors, seven senior lecturers and twenty-seven lecturers. The number of respondents poses a limitation to the degree of reflection of the reality; it reduces the degree to which the findings could be generalised about the entire University of Zambia. However, a picture of the situation does emerge and could be used as a basis for developing an effective information service through the network. There would be need for another research with a higher response rate in order to be able to come up with data that could be safe to generalise on.

Findings

Despite the above limitations, the following findings and conclusions were made. In order to determine whether rank and seniority correlated with the usage of the library and the networks, respondents were asked to indicate their ranks. However, due to the low number of respondents it was decided that the data would not be subjected to statistical treatment. Although the respondents have been shown in some categories such as by rank, the findings were subjected to qualitative description, analysis and discussion.

The Use of the Intranet

Twenty-six of the 37 respondents, comprising of one professor, all the seven senior lecturers in the sample and 18 out of the 27 lecturers in the sample used the Intranet. Out of the 26 who used the Intranet, 10 were heads of department, one was an assistant dean and one was a dean. They claimed they used the Intranet in administrative duties, such as, processing students' results. Eleven of the respondents did not use the Intranet. This included a head of department and one assistant dean. They gave a variety of reasons for

not using the Intranet. Some of the reasons included: no good guidance on how to use the Intranet; lack of the technical know-how on using the Intranet; lack of computers with access to the Intranet; and faulty administrative arrangement on the use of computers in the University.

The Intranet Services used

When the 26 respondents were asked to indicate the reasons for using Intranet services they mentioned a variety of reasons, as revealed in table 1. The most prominent reasons were: using the printer (14); student records system (11); accessing information (10); accessing the anti-virus tools (10); and downloading software (9)

Table 1: Reasons for Using Intranet Services

N=26

Reason	Frequency	Proportion (%)
Using the printer	14	53.8
Students records system	11	42.3
Accessing information	10	38.5
Accessing the anti-virus tools	10	38.5
Downloading software	9	34.6
Accessing some software applications	7	26.9
Accessing financial records	2	7.7
E-mail	2	7.7
Use of scanner	1	3.8

The benefits they derived from using the Intranet were given as follows: easy communication, accessing latest information, accessing information from other departments, easy to receive announcements, ability to use free software and ability to expand capability of one's computer.

Table 2 shows that the motivation for using Intranet services were mainly because of its convenience (57.6%); free access to the Intranet (53.8%); easy to use (50%); and its usefulness (50%).

Table 2: Motivational Factors for Using Intranet Services
N=26

Factor	Frequency	Proportion (%)
Convenience	15	57.6
Free access to the Intranet	14	53.8
Easy to use	13	50.0
Very useful	13	50.0
Free information and software	9	34.6

The respondents also gave factors that discouraged the use of the Intranet as: no good guidance on how to use the intranet (26.9%); not much on the intranet that I would want to use (23%); poor connectivity from my place of work (15.4%); faulty administrative arrangement on the use of computers in my place of work (11.5%).

Use of the Library

In order to determine the information searching habits, and based on an assumption that academic staff need information and library services, respondents were asked to indicate whether they used the library or not. Since it was possible, and intended that the library catalogue could be accessed through the Intranet, respondents were asked to indicate their usage of the library and its catalogue.

Twenty-nine of the sampled respondents used the library and a majority of them indicated that they used the library regularly. Those who did not use the library indicated that they did not because there were no current materials, or that they were not able to find the information they wanted within the departments.

When respondents were asked whether they used manual or computer-based library catalogues, twenty-nine of the respondents indicated that they used the manual catalogue. In order to determine whether the use of Intranet and Internet could have effect on the use of the computerised catalogue, OPAC, only four claimed they used OPAC (Online Public Access Catalogue). The OPAC was developed and introduced in the late 1990s. Before then were catalogue cards. The cards are still in place and in the same location, though not updated. The OPAC is situated somewhere behind the card catalogue cabinets separated by a transparent divider.

Those who did not use the OPAC comprised of two professors, seven senior lecturers, and 24 lecturers. The reasons they provided included: not aware of the OPAC/ the OPAC had not been publicised, no need for using it, found OPAC too congested with students, did not know how to use it, found it not always working.

The reasons indicated for not using OPAC could probably be due to inadequate marketing as well as lack of well- thought -out arrangements to support users. Since the reasons for not using it are not a matter of preference, it is inferred that the problem is as given: lack of marketing and library administrative support services.

Based on the Intranet, it is possible to access the library catalogue from offices or anywhere outside the library. When respondents were asked if they used the OPAC remotely from their offices, only four of the respondents claimed thy used it from their offices.

The Use of the Internet

Thirty-five respondents indicated that they used the Internet in one way or another and only two did not use it. Table 3 shows why Internet services were used by the respondents. E-mail, accessing information on web sites and reading newspapers were the major reasons for using the Internet.

The main reasons indicated for the use of the Internet were: E-mail (97.1%); accessing information (77.1%); reading newspapers (68.6%); and accessing other library catalogues (42.9%).

Table 3: Reasons for Using Internet Services

N=35

Reason	Frequency	Proportion (%)
E-mail	34	97.1
Accessing information	27	77.1
Reading newspapers	24	68.6
Accessing information	15	42.9
Downloading software	10	28.6
Sports news	1	2.9
Discussion groups	1	2.9
Accessing journals	1	2.9

When the respondents were asked to list the benefits of using the Internet, a variety of benefits derived from using the Internet services were listed as shown in table 4. The major benefits include accessing information (31.4%); keeping in touch (20%) and current information (20%).

Table 4: Benefits of Using Internet Services

N=35

Benefits	Frequency	Proportion (%)
Accessing information	11	31.4
Keeping in touch	7	20.0
Current information	7	20.0
Quick transmission of information	6	17.1
Easy communication	4	11.4
Can publish on the Internet	1	2.9

The major motivational factors for using the Internet as revealed in table 5 were: it is convenient (82.9%); very useful (80%); free access to the Internet (71.4%); and easy to use (68.6%).

Table 5: Motivational Factors for Using Internet Services (N=35)

Factor	Frequency	Proportion (%)
Convenience	29	82.9
Usefulness	28	80.0
Free access to the Internet	25	71.4
Easy to use	24	68.6
Free information and software	23	65.7
The modern thing to do	9	25.7
Always getting whatever that is wanted	9	25.7
No other option	4	11.4
Links to other sources of information	1	2.9

The respondents also indicated some inhibitions in the use of the Internet. Many inhibitors were mentioned as revealed in table 6 and the most prominent inhibitor was the problem with the server.

Table 6: Inhibitors to the Use of Internet Services

N=35

Factor	Frequency	Proportion (%)
Server problems	27	77.1
Connectivity	11	31.4
No good guidance on how to use the Internet	6	17.1
Faulty arrangements on the use of computers in the department	4	11.4
Long distance to the computer with Internet access	3	8.6
Lack of technical know- how	3	8.6
Too busy	3	28.6
Doubtful information	1	2.9
Only one computer with internet access in the department	1	2.9
Too slow	1	2.9

The responses indicate that users have tried to use the services but have faced technical problems both in terms of the technologies and administrative arrangements.

Policy on the Integration of ICT

From the literature and discussions held with the Director of the Computer Centre, it was established that there was no University policy on the integration of ICT in the academic programmes. Administrative duties, such as accounts and students records were on the Intranet and the network was used by a lot by people who carried out such duties. Other services and information, such as communication with students and provision of common information for all stakeholders, for example, student assignments in courses, etc, were not specified.

There has been no policy on how to integrate the network and the ICT as provided in the CAMAS programme. Soon after the creation of the CAMAS network, a team of staff was assembled to work on the ICT policy. The stakeholders included academic staff, students, and administrative staff. The team worked and developed a draft document outlining the various stakeholders of the university community, their information needs and use and recommendations were made on what information and services would be on the network

and how the network would provide such information and services. The document was not implemented due to changes in the University management. The Deputy Vice-Chancellor who seemed to be interested in the document was removed. The Dutch project under which CAMAS was implemented came to an end.

A new policy team has been put in place, but its work and results are yet to be seen. There is need for a policy guideline on what information should be on the network, and how to use the network within the framework of the university. So far it is not clear whether e-mail is admissible as an official means of communication between the major university stakeholders. It is not specified as university policy whether students could communicate with their lecturers using e-mail and whether lecture materials could be somewhere on the net for students to use. In the absence of such guidelines, it is up to individual members of the community to determine what to do with the network.

Discussion of the Findings

The findings have revealed that the usage of the library by the respondents is low. This low usage could be attributed to inadequate library materials. In such a situation, electronic formats of information, that is, information available freely on the Internet would have been a natural alternative. However, it is clear from the responses that the Intranet, and, by and large the Internet were not utilised enough to realise the intended objectives under the CAMAS programme. Some of the major factors that affected the full utilisation of the network seem to be the lack of policy on the use of the network, inadequate investment, poor marketing of the services available and inadequate skill development.

Lack of Policy

The only people who seemed to be using it more frequently were those who entered and manage students' records and those who managed networked information, such as, assistant deans, finance officer, and the Registrar's Department. Lecturers were not allowed to access student records on the network. As Murugan and Thomas (2002) have observed, the acquisition and installation of technologies may be the easiest but what is crucial are the policies in place.

Inadequate Investment

Investment here refers to acquisition of state-of-the-art servers, bandwidth, and anti-virus that would protect the entire network. As a result, the Internet was very slow such that a lot of potential users were discouraged. Although the library online catalogue was supposed to be accessible remotely, the server had been giving problems. Users were not sure when the server would be available; therefore a lot of them had given up and only used the e-mail facility, since e-mail services did not seem to be affected as much by the server and bandwidth problems.

Due to inadequate funding there were very few academic staff that had computers. The others either had to go to some central place such as the head of department's office or the computer laboratories. This discouraged a lot of potential users. One had to be very zealous to trek to the library and hope that there would be no queue, and also that the server would be working. This could be one of the reasons for recorded low usage of the PERI services.

Poor Marketing

There was evidence of lack of awareness of the services that could be accessed through the Intranet. As a result of lack of policy there has been no deliberate marketing efforts to inform staff of the services.

Inadequate Skill Development

Some members of the academic staff indicated lack of skill as discouraging factors. Although the Computer Centre of the University had organised training for those who were interested, this did not seem to have been effective as a way of training staff. Some people who might have been discouraged to go for such open workshops would have been more keen if the trainings were localised in units or departments.

Conclusion

The new information and communication technologies are the modern means of communication and institutional management. The University of Zambia made some basic investment to acquire such modern technologies with a clear vision. However, a lot needs to be done in order for the University to join the rest of the developed and modern

universities. The starting point is the policy on the integration of ICT within the daily running of the university. There is a need for the University of Zambia to develop a clear policy that will guide the development and integration of ICT in academic work and management of records including students' records. This policy would then be followed by decisive investment in technologies, such as increasing the number of computers to correspond with the staff numbers. Other investments should go into facilities such as bandwidth and other auxiliaries.

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A Critical Analysis of Library Computerisation at the Copperbelt University, Zambia

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Abstract

The paper takes a critical look at the computerisation project at the Copperbelt University Library, Zambia. It argues that while the idea to automate may appear to a large extent to have been driven by the desire to catch up with modern trends to use computers in information management, there were indeed peculiar institutional conditions that necessitated the computersation of the library. The inaccurate costing of the project was seen as a major setback in that it was accomplished at the expense of a small and outdated book collection, and other information resources. Selection of Stylis as the main software for library automation is viewed as a costly mistake as its continuity is very much uncertain. While the basic computer infrastructure and library Local Area Network has been laid, the internal operations are seen as being at variance with professional expectations. Lack of Internet access by professional librarians and the single PC for Internet use by library users are seen as obstacles to the smooth operation of a computerised library network. The non-availability of PCs for CD-ROM use by the public is also seen as a negative phenomenon that needs redress. The lack of cooperation between the University of Zambia Library and the Copperbelt University Library in their computerisation projects is seen as a missed opportunity for beneficial networking. The paper concludes that automation at the Copperbelt University Library is only partially accomplished.

Introduction

In the early 70s when library automation hit the African scene, it was fashionable for libraries to jump onto the bandwagon for automation without much reflection on what they intended the new systems to achieve for them. Indeed, it was a noticeable trend for librarians in Africa to be sent to Europe to see how library automation was done and to find suitable systems that could be used for automation at home. On the other hand,

Europe and America had begun their library automation much earlier and had gone through a number of stages. Tedd (1997) identified three phases: the experimental system stage, in the early 1960s; the local system phase, in the late 1960s; and the cooperative system phase, in the 1970s.

Essentially, the first phase was characterised by in-house experiments. Much of the systems evolved from punch-card data processing system. In the late 1960s, computer technology had improved to an extent that libraries were able to develop local computerised systems to handle library operations. In the 1970s, libraries were pooling resources to develop and maintain cooperative systems. Indeed, by the late 1970s, there were in existence off-the-shelf turnkey library systems.

From the 1980s, there was absolutely no need for one to try to reinvent the wheel. With the advancements in the computing and telecommunication technologies, coupled with the 'information explosion' characteristic of modern information age, the question was not whether to computerise or not, but whether to remain behind or move with changing times and become competitive. However, this did not mean setting out on library automation without any proper analysis of objectives and goals, prevailing situation and resources.

Like in any business venture a feasibility study was necessary. A cost analysis, taking into consideration all resources required to implement the new system, is of paramount importance. This would involve, inter alia, cost of study tours, software, hardware, accessories, staff training, licence and sustainability cost. It would be pointless to embark on an expensive project with inadequate funding or resources. It would be equally naïve to implement an expensive system without a clear framework for maintaining and sustaining the system in the long run.

Vision for Computerisation

The idea to computerise or use computer technologies in the Copperbelt University Library goes as far back as 1989, and was expressed in its mission statement which stated that:

> The Copperbelt University Library is to be taken as a learning and information resource center... It will endeavor to utilize all appropriate and latest information technology such as computer technology.

> microfilm, video, record players, equipment, etc... (CBU Library Annual Report, 1988-1989).

To reaffirm the notion of computerisation, it was further stated in one of its objectives that:

> Computerization of both public and technical services is the library's cherished goal. In this stage of Information Technology (IT), no organization can afford to ignore this aspect. We hope that the necessary equipment and qualified personnel will be obtained or acquired soon... (CBU Library Annual Report, 1990).

The idea to automate some of the library services may appear to a large extent not determined by the peculiar situation obtaining in the University, but by the compelling desire to move forward with changing international trends in information management and dissemination. However, this is not to say that there were no peculiar local conditions that may have given justification for automation. Four points stood out prominently among others. These were:

i) The manual charging or issuing system was characterised by long queues and annoying delays;
ii) The filing of user cards and counting of statistics was not only cumbersome but getting out of control as, on several times, filing of cards spilled over to the following day;
iii) Maintenance of the manual card catalogue was proving problematic. The production and filing of catalogue cards was often behind schedule (books were put in the collection without records in the catalogue); and
iv) Control and maintenance of serials was cumbersome as there were many records created.

In short, by 1989, the Copperbelt University Library Management Team had realised that, apart from the need to catch up with modernity in terms of information technology, conditions were ripe to change the manner in which they were administering and operating library services.

Planning of the Computerisation Project

To set the automation wheels into motion the University Librarian, in 1992, requested one of the members of staff who had recently been trained in information technology, to undertake a systems analysis and design study. The objectives of the study according to Chisenga (1992)were as follows:

a) to determine the library functions to be automated in order to improve the creation, maintenance, storage and accessibility of library records;
b) to recommend priority areas for automation; and
c) to recommend options available for automation.

Indeed the study was undertaken and a systems analysis and design study report produced and submitted to the librarian in December 1992. This was to constitute a principal guideline for the computerisation of the Copperbelt University Library. The entire automation project was aimed toward:

> the ultimate task of improving services provided to the users and catch up with the changing environment in which computers are enhancing the provision of better and more efficient services (Chisenga, 1992).

The study underpins the point that, although it is fashionable to move with changes in international trends in utilising information technology in information management and dissemination, there is a need to clearly articulate objectives and guidelines for one's automation project. Further more, it is of great significance to bear in mind that technology for the sake of fashion is in vain, and only becomes meaningful when aimed at achieving specific desirable objectives which, in this case, is the improvement of library services to users.

The Library Computer Committee

In view of the implementation of the recommendation made in the systems analysis report, the librarian constituted a library computer committee. This committee initially consisted of the Librarian, the Deputy Librarian, Head of Technical Services, Head of Public Services, Library Programmer, Head of Cataloguing, and some other staff members with IT knowledge. On the way, some people fell out, and others were brought in. Nevertheless, this committee was charged with the responsibility of spearheading the

planning, coordination and implementation of the library automation project. In general, the committee's terms of reference as provided by Chisenga (1992) were:

- monitoring the progress of the project;
- selecting and evaluating the proposed software and hardware;
- reviewing strategies for automation;
- identifying training needs in the operation of the new system; and
- providing general support, advice and guidance to the project.

It is a known fact that universities the world over operate on the basis of a committee system. There are a number of advantages and disadvantages associated with this system. However, when it comes to a project of the nature and magnitude of computerisation three merits can be pointed out. Firstly, computerisation is an expensive project and there must be a collective responsibility in committing huge resources to the project. In case of failure arising from wrong decision or wrong selection of software or hardware, no one should be singled out. Secondly, for the sake of continuity of the project in case some members fall out, a committee is important. Indeed, during the course of the project implementation, one of the key members of the project did resign and leave the University for greener pastures, but the project continued. The third reason is for acceptability purposes. The basic idea is to get as many members of staff involved in the project so as to disabuse fears and misconceptions of the new system and to enhance the success rate of the project.

Staff Training and Development

Right from the outset, the Copperbelt University Library management realised that, in order to proceed with the establishment of new services in conformity with modern trends in information provision, there was need to have a well-trained workforce. With the advent of IT and the planned move to embark on library computerisation, it was imperative that members of the library staff be appropriately trained. Since 1991, the library has trained five members of staff at postgraduate level. In 1999, two members of staff graduated from the University of Zambia with first degrees. They were subsequently promoted from library assistant to the Assistant Librarian grade. One of them did his postgraduate programme in Botswana. Currently, there are four members of staff pursuing first degree courses at the Copperbelt University and the University of Zambia.

The staff training, coupled with promotion, has served to motivate library staff to perform their duties efficiently and effectively.

As indicated elsewhere in this paper, the Copperbelt University Library has been able to send its staff for training, especially in areas to do with computerisation. This has been in the form of short courses on both group and individual basis. The library has done extremely well in this area, and suffice to contend that it is because of this strategic planning in staff training and development that the Copperbelt University Library has been able to implement its library computerisation project. In this regard, one supports Geleijnse's contention that:

> I like to emphasise that the investment in education and training is just as important as the investment in hardware and software. A strategy for information access should therefore be accomplished by a strategy for personnel development and education (Geleijnse, 1995).

Financing the Automation Project

At the time of planning for computerising the library services in 1992, the indication was that funding for the project would come from external sources. The internal situation within the university was one characterised by inadequate funds. On the other hand, even if funds were available, it was unlikely that it was going to be spent on library automation. The truth was that library automation was not among the priority project list within the entire university. It must be noted that while the library had no single computer, the central administration had two IBM PS/2 model 30 computers and two IBM laser printers in the Vice Chancellor's and Deputy Vice Chancellor's offices. The Registrar's office had one computer. The Bursar's Department had several computers and was computerising the payroll system. Nearly all the three schools had some computers.

Zambia Education Sector Support Programme – ESSP

The government of Finland through its Department of International Development Cooperation (formerly Finnish International Development Agency – FINNIDA), in cooperation with the Zambian Government, undertook the Education Sector Support Programme. This programme was in two phases. ESSP I ran from 1991 to 1995 while ESSP II ran from 1996 to 1999. ESSP I had 12 sub-projects. Sub-project 2 was the book support project, and it was under this project that the Copperbelt University Library

requested FINNIDA to fund its automation project. Indeed, FINNIDA agreed to fund the project. In 1993 a first consignment of computer equipment was received.

> The library received through FINNIDA grant the following computer hardware, one AST Bravo 486 DX/33 Mhz micro computer, one dot matrix printer, one CD-ROM Drive, one Uninterruptible power supply unit (UPS). The library also acquired the Basic module of the STYLIS software (CBU Annual Report, 1993).

It was with this skeletal equipment that the Copperbelt University Library kicked off its automation project. In addition the library has been able to train its staff both at home and abroad, as Zulu affirms:

> The CBU Library has also been able to send its staff on short term training attachments to South Africa; and the two university libraries have been able to embark on their automation programmes. (Zulu, 1996).

Under ESSP II sub-project 2, Library Support, the Copperbelt University Library continued to enhance its computerisation project. Indeed, by the end of 1999, which marked the end of the ESSP II Project, the Copperbelt University Library had acquired the following computer equipment: 25 computers, CD-ROM drives and servers, modems, scanners, printers, and application software.

Beit Trust Funding

Apart from FINNIDA funds, some computer equipment had been procured through a 10 000 pounds sterling grant from Beit Trust (CBU Annual Report, 1998). In addition, Beit Trust contributed 29, 100 British sterling pounds for procuring fibre optic cables and building a campus-wide computer network. As the 1997 annual report puts it:

> The library also played a very prominent role in sourcing for external funding for phase I of the campus Area Network. With this exercise, at least 50% of the campus was networked through some fibre optic cables (CBUL Annual Report, 1997).

The Copperbelt University Library management was very much conscious of the changing information scenario in which universities were wiring their campuses in order to enhance learning through computer utilisation. Similarly, the Copperbelt University

Library used the campus network system to access different electronic information services.

In summary, it must be pointed out that the entire automation project conceived and executed by library members of staff was funded through donor funds: FINNIDA and Beit Trust. The university did not provide any funds. This was one element that put the sustainability of the project in suspense after the expiry of the FINNIDA project in 1999.

Selection of Library Software System

From the beginning, it was agreed to buy an integrated software system that was going to take care of all library requirements. These functions were acquisitions, cataloguing, online public access catalogue system, circulation system, serials control system, management information system and information storage and retrieval system. Four library systems were identified for possible purchase. These were: Stylis, Erudite, Star and Inmagic Plus.

a) **Stylis**

Stylis was initially marketed by Infoplan of South Africa. It was later transferred to Denel Informatics and later to FailSafe. The overall assessment of Stylis was that it was really an integrated library system and that it met almost all the requirements of the CBU Library. On the assessment sheet, it scored 92.10% of the CBU Library requirements.

b) **Erudite Information System**

This was marketed by ACS/OPEN of South Africa. Erudite was considered to be a very good system as it was a menu driven system, with very good user-friendly screens. Plans for updating it to the Windows environment were already on paper. Erudite scored 93.42% in terms of CBU Library needs.

c) **Star**

Star was being marketed by Glomas Africa (PVT) Ltd. It was considered as a good package for information storage and retrieval and good enough for special libraries. It scored 65%.

d) **Inmagic Plus**

Inmagic Plus was also considered good as an information and retrieval system, but good for special libraries. It scored 43.36%.

Final Selection

After taking into consideration, among other factors, the requirements of the CBU library automated system, the hardware requirements on which the system was to run, company profile, price and type of after sale support available, it was decided that Stylis be purchased. This was despite the fact that Erudite scored higher than Stylis on the checklist or score sheet. One is inclined to think that the final score should have been reflective of all the parameters taken into consideration. However, Stylis was bought and installed; and to date, it remains the main software used in the library. In the later section of this paper we will take a look at how the system has fared so far.

Automation of Library Services

According to the Systems Study Report: Alternatives and Strategies for CBU Library Automation (this was an appendage to the 1992 main report), the recommended ranked order of priority for automation was as follows, with management information system ranked least:

- Information storage and retrieval system
- Circulation control
- Serials control
- Cataloguing and classification – Basic module
- Acquisition
- Online public catalogue
- Management information system.

a) *The Information storage and retrieval system* was seen as the easiest and most straightforward case in that what was envisaged was the purchase of CD-ROM drives and server and CD-ROM databases for immediate application. However, due to logistic problems in terms of CD-ROM drives, both stand alone and those built into PCs and the actual CD-ROM databases, it was not possible to begin with this area. Despite having received among the first computer equipment an external CD-ROM drive,

very little was done to enhance this area immediately. At the end of 1999 about four computers with CD-ROM drives had been bought. The most significant development in this area was the acquisition of a CD-ROM network server. This server has the capacity to load 14 CDs that could be accessed by different users at any given time.

In terms of CD-ROM databases, nothing significant has been acquired.

> The Library received an assortment of other CD- ROMs either as donations or as part of our subscription to journal published by certain publishers (CBUL Annual Report, 1998).

In addition to these, the library, being a depository library for World Bank documents, has been receiving some World Bank titles on CD-ROMs. This, in future, would constitute the bulk of the CD-ROM collection in the CBU Library. However, even with the available CD-ROM databases, the library has been unable to put them at the disposal of users. The two major constraints were insufficient PCs and insufficient memory on the available PCs to run the software on which these CDs operate. The other hindrance is rather more or less a misguided internal library policy of having only the Librarian, his deputy and the senior sub-librarian have online access to the CD-ROM server.

Thus, for this service to have positive impact on both library professionals and users, the following need to be done:

- No less than 10 computers with very high computing power need to be acquired and dedicated for CD-ROMs for the users.
- Memory on all present workstations needs to be upgraded.
- All professional members of staff need to be connected online to the CD-ROM server.

ii) *Circulation control*: although an important aspect of library operation, the library could not be automated before the creation of specific databases needed to support it. Thus, what transpired was the need to have the already existing library materials put on the Stylis database. Stylis was indeed an integrated system whose basic module was the cataloguing module. The cataloguing module was basic in the sense that bibliographic data created in this module formed the basis of the operation of the Online Public Access Catalogue (OPAC) and the circulation module. Consequently, the first thing the library did was to convert

the existing manual catalogue into an automated database or catalogue. This was done by manually keying in records in a project known as "Retrospective Conversion of Manual Records into Machine Readable Format." It must be pointed out here that this manual keying in of records was decided upon and accomplished successfully mainly because of the small size of the collection. In all, about 21 000 records were created.

iii) During the initial stages of retrospective conversion, very little of automation was seen by the users. After a good number of records had been put onto the Stylis database, the second thing the library did was to activate the OPAC. The users were then able to see the result of the automation project. Indeed, this brought the automation benefits to the users.

iv) As pointed out elsewhere in this paper, the problem of delays at the circulation counter that was prevalent due to the cumbersome nature of the manual system was still widespread and needed to be addressed. As a prelude to this, books had to be bar-corded, so as to use scanners or bar code readers, and users also had to be registered onto the Stylis user database. Hence, the third thing the Library did was to activate the circulation or loans module. Consequently, users were able to borrow books using the computerised loan system.

v) *The Acquisition and Serials modules*. These are not fully operational. The two modules essentially deal with the purchase and receipt of materials. Functions involved include ordering, receiving and registration, claims and budgetary processes. Unfortunately, the library did not have money to purchase books. A majority of books came in through donations. In the case of World Bank publications these came in by virtue of the library being a depository centre for World Bank publications. Furthermore, subscriptions to serials was, until recently, done through Blackwells. In summary, The 1998 Annual Report sums up the scenario:

> Whereas the basic cataloguing, loans and OPAC modules were fully operational, the serials control and acquisition moduleswere partially implemented. This was due to inadequate activity as well as inadequate terminals (CBUL Annual Report, 1998).

One important lesson learnt from this is the need to be flexible in implementing the project. Whereas, in theory, the priority listed in the systems report looked logical, the

situation on the ground was totally different and demanded that cataloguing of documents be done first. However, a fringe benefit of the project was that the University was able to provide other services, such as Internet and e-mail facilities, although these services are yet to be provided at the optimum level.

Appraisal of the Automated Project

As at the end of 1999, and the end of the ESSP II, the Copperbelt University Library had put in place an automated library system. It had acquired the necessary computer hardware and software and built an information technology foundation for the University Library. Lundu (1999) sums up the situation when he contends that:

> the library is virtually computerised and has become part of the cyberspace' with the introduction of Internet and World Wide Web (WWW). With this development the library users are able to access a wide variety of information resources.

However, with one PC used for Internet connectivity, and no PCs dedicated to CD-ROM services the library certainly did not see how users could be able to access a variety of information resources.

Moreover, how the system would be sustained remains uncertain. There has been a high rate of computer breakdowns, and so far seven PCs have packed up. The future of Stylis, in terms of future developments and upgrades, is uncertain. The expectations of the users have been raised to high levels while the capacity of the library to meet or satisfy these expectations hang in doubt. The next part of this paper addresses some of these concerns.

Problems of the Automation Process

There were a lot of problems encountered in the project, the prominent ones being the inaccurate costing of the library computerisation project before it was embarked on, limitations in the proposed automated library system, low capacity netware system, neglect of collection development because of computerisation, faulty selection of the software used for the project and lack of cooperation between the two major libraries in the country.

Inaccurate Costing of the Library Computerisation Project

A cost analysis aimed at assessing approximately how much the project would cost is very important. As pointed out in the introductory remarks, it is not a good thing to embark on an expensive venture with inadequate resources or no idea of how much the entire project would cost. The library began its automation project on a sound note in that a systems analysis was conducted. This served as a guiding tool, despite some of its shortcomings as pointed out in this paper. If the library had to sell the project for funding either within the University or outside, it would have been imperative to estimate the cost of the entire project in dollars and not in kwacha terms. Thus from the start, this was where the library went wrong. Just as opined by Chisenga (1999):

> due to various factors which included the non availability of detailed information on the already developed library turnkey systems and the ever growing inflation rate in the country, it was difficult to work out the cost estimates for the proposed automated library system.

The library started committing donor funds on the computerisation project without a clear indication as to how much it would finally cost. Hence, the library spent randomly, if not sporadically, on the project and tried to buy all it could before the end of the FINNIDA Project. Unfortunately, this was done at the expense of other information resources.

In short, the library realised that there was certainly a need to quantify the total estimates for the project in dollars. This could have made it possible to know from the outset and determine what was to be spent on computerisation, bindery material, printing, audio-visual materials, and office furniture. Thus, inaccurate costing of the computerisation project led to a situation where, even at the end of ESSP II, it was not clear whether the project was completed or not. One thing was certain, there would be no more funds from FINNIDA, and at the same time, the library was not sure or there were uncertainties as to where money to maintain and replace the acquired computer equipment would come from. Moreover, the picture is now becoming clear that the library would need more computers for CD-ROM and Internet services for users. In short, while the ESSP II ended in 1999, the Copperbelt University Library Computerisation Project was only partially completed.

Limitations of the Proposed Automated Library System

Out of the 15 PCs, only 5 were to be used by users as OPAC terminals. This looks more of a staff-centred than a user-centred system. Indeed what later transpired was that provision was made for 8 OPAC outlets for users. A noticeable feature was the omission of CD-ROM and Internet provisions for users. It appears as if the library started off with a very limited notion of the automated library system it wanted to establish. This view, seems to be elucidated in the next paragraph.

Low Capacity Netware System

Owing to an inherent weakness in the feasibility study report that assumed a narrow view of computerisation, and partly due to lack of proper guidance, the library bought networking software, Novel 3.12 that could only allow 10 users at a time. This was despite the fact that a fifteen-user network was initially projected. Hence, the 10-user netware was inadequate from the beginning. Subsequently, Novel the 3.12 ten-user was replaced by the ovel 4.1 twenty-five user. However, even this would soon be insufficient

if the library was to extend OPAC services outside the library. The trend the world over is to have as many offices and student study halls and rooms linked online to the library databases. This would entail another upgrade soon. For example, in 1994, University of Zambia replaced the 16-user SCO open server network system with a 128-user netware.

Moreover, the change of netware goes hand in hand with the change of the connecting hubs. The change from a 10-user netware to a 25-user one meant buying a 25-user hub. This is an unnecessary cost that could have been avoided if the library had a clear understanding of the network capacity required.

Neglect of Collection Development

The CBUL annual reports from 1993 to 1998 indicated that only 6, 015 books had been added to the collection. It has been argued that the strength of a library is not on the basis of the size of the collection but in its ability to access external information sources for its users. And as Geleijnse (1995) has contended regarding future libraries:

there will be a shift from collections to access and from collection management to information management.

In spite of this there is still a need to meet library standards, in terms of collection development, and relating the number of students to the number of books in the collection. According to Built Environment Co-ordinators Limited (1972), Canadian Standards established 75 volumes per full time student for universities and 10 volumes for secondary schools. In simple terms, this means that for a student population of 2000, for a university, the minimum library collection should be 150, 000 volumes and for a secondary school it should be 20, 000 volumes.

When the Copperbelt University was formed out of the merger of the University of Zambia at Ndola and the Zambia Institute of Technology (ZIT) in 1988, it was immediately noticed that the size of the library collection was far below the preferred university standard. It was thus envisaged to increase the book collection by 5 000 volumes per year. It was projected that by the year 2020, the library collection would reach 150, 000 volumes.

The 1998 stock review report puts the library collection at 24, 985. Unfortunately, during the computerisation period (1993 to 1998) barely 6 000 volumes were added to the collection. With a student population of about 2 000, this gives a standard ratio of 12 volumes per student. Needless to say that the University's standards are far below university requirements and only equivalent to that of a Canadian secondary school.

The computerisation project has been undertaken and partially accomplished against a background of not only a collection below par, but also an outdated collection that is unable to meet the demand of users. While library services, especially OPAC and loan services, have certainly improved, there has been no increase of information resources at the disposal of users. The Internet and CD-ROM services were far from making any meaningful contribution and impact in the learning, teaching and research activities of the university.

One must hasten to point out that under ESSP II, the procurement of books was not allowed by FINNIDA. Hence, the Copperbelt University Library could not have added more books through FINNIDA funds. However, what was disappointing was the fact that no case was put up to highlight the weaknesses and inadequacies of the collection so as to convince FINNIDA to allow continuing provisions for book purchases throughout the Project.

However, even under ESSP I, very little resources were committed to the procurement of books. According Zulu (1997):

> From a total allocation of USD 215,000 (1991-1995), the library has been able to acquire 1500 titles of library reference books totaling 2500 volumes ....

On the contrary, more money was in the final analysis, given to the CBU Library. As Lundu (1996) points out:

> Our share of this was originally US$ 247,000. However, due to our diligent utilization of this money, the final figure came to US$ 276,000...

Unfortunately, only US$ 12,000 was spent on books in 1992. Thereafter, the Copperbelt University Library had made it clear that it was not going to use FINNIDA funds on buying books. The University was supposed to make provision for library book purchase, which it never did.

Admittedly, computerisation was inevitable but all that was needed to be done was to create a balance between IT and the book collection. The money that was spent on office furniture and other resources bought under ESSP II could have been spent on books. Perhaps the library would have been able to add to the at least 15 000 volumes to the collection.

While appreciating IT, being a university in a Third World country, the need for information in print format is still important. Indeed, even in developed countries, the need for information in printed form continues even with the introduction of an electronic library, as Day (1995) stated in his study of the impact on people of the electronic library at the University of Northumbria at Newcastle:

> demands for access to JANET and the Internet soon followed, but with no reduction in use of traditional paper-based library services. With so much electronic data still bibliographic, document delivery services were being put under pressure, while increasingly students were expecting more learning support from library staff.

Selection of Wrong Software

Stylis was selected and bought after an evaluation of four library systems. The selection of a system is often a delicate aspect in the sense that a careful and exhaustive examination has to be made before committing resources to acquire the system. Mistakes made, if any, tend to be costly especially if public funds are involved.

Stylis has performed fairly well. But there had been problems both with the system and the people operating the system. However, the library has reached a stage where it has realised that all is not well with Stylis. To begin with, the library did not cast its net far and wide enough to target reputable and well-tested systems. Of the four systems considered for selection, Inmagic Plus and Star were not suitable for university libraries. The evaluation was really between Stylis and Erudite. In the first place, what the library should have been looking for were library systems used in universities and not in special libraries.

Despite collecting more information on Infoplan (the developers of Stylis) and Stylis itself, and making all to believe that a suitable system had been selected, the following has occurred:

a) Stylis has changed hands three times, from Infoplan to Denel Informatics, and from Denel to FailSafe. This, in itself, contradicts the assertion that Infoplan was a company of high profile with a product whose future sustainability was assured;
b) No update of Stylis has been made so far;
c) The number of users of Stylis has been on the decline even in South Africa; and
d) The future of Stylis is uncertain.

The first mistake the library made was to show more interest in Infoplan and hence collected more information on its activities than on its competitors. This was attested to by Chisenga (1993) when he stated that:

> I must confess that I collected more information about Infoplan. Hence its activities than AC/Open.

The contention that Stylis was going to cost less than Erudite could not have been sufficient reason to favour it as the cost aspect was not an issue at that time. More often than not, cheap things are not durable. In essence, the fact that Erudite scored higher than Stylis would have been adequate reason to recommend its purchase. The other reasons justifying the selection of Stylis over Erudite were tantamount to doctoring research findings in order to select it.

In a study on selecting a library system, Nkhoma (1994) presented the don'ts that every selector of a library system must guard against and these include:

- not depending on system evaluation by interested people like vendors, as they are primarily concerned with increasing/promoting sales.
- not accepting to be hosted by a particular vendor while looking out for a system to buy as you may feel duty bound to pay back the courtesy by favouring the vendor's system.
- not restricting yourself to talking to senior library officers or librarians as they may have been a part to the selection of an unsuitable system and would be on guard to mention or highlight the weakness.

The mere fact that Stylis at the time of its selection was installed at ten institutions in South Africa might not be a manifestation of its suitability. Those institutions might have based their selection on loyalty to a purely South African product. Now that they have seen its weaknesses, they have no option than to abandon it.

In contrast the University of Zambia, according to Mwachalimba (1999):

> was able to choose a library system Dynix which was installed at more than 2,500 locations world-wide, and has a good technical support accessible via the Internet.

On the other hand, since the library depended on donor funds, it was stuck with Stylis. Unless the developers of Stylis upgrade their software to operate in a Windows environment, and take care of some of the noticed defects and deficiencies, the CBU Library would have no option but to look elsewhere for a system that they would have to use in the new millennium. Admittedly, this is exactly what CBU Library has done. And so have other institutions that initially installed Stylis.

Lack of Cooperation Between the Two Major University Libraries

The global trend is for institutions pursuing similar or same objectives to form consortia that enable them to cooperate in areas of common interests and benefits. Even on individual basis, the trend is the networking of people with common interests. It is pointed out elsewhere in this paper that libraries in Europe, as far back as the 1970s, were involved in managing cooperative library systems. There are a number of benefits in cooperating in the acquisition and implementation of library activities. Firstly, there is the advantage of sharing cost in terms of bringing in experts to train staff, trouble-shooting and general maintenance of the system. Secondly, networking the two systems would be easy and advantageous to the library users in that users from the two universities would be familiar with the system. Thirdly, after staff had been trained in specialised areas like software and hardware systems administration, it would be easy and cheaper to share their expertise. Finally, access to one another's collection and information resources could enhance the information resources at the disposal of users in the two universities.

Unfortunately, management at the two institutions saw no need to cooperate in their automation projects. This was despite launching the two projects about the same time and being funded by the same donor.

Conclusion

Computerisation is a big project in which a number of people at various levels participated, and subsequently gained different experiences, skills and knowledge. Indeed, some gained experience in systems design, implementation, monitoring and evaluation, others gained experience in database design and management. Still others gained experience in operating various modules of the software. Undoubtedly, a lot of academic papers would be written on the same project but with differences in emphasis.

It can be concluded that the computerisation project at the Copperbelt University Library was done in a well-planned manner. Mistakes, if any, that may have been committed, whether practical, professional or academic, were not intentional but purely human. While trumpets of success may have been already sounded in some circles, there is a lot that remains to be done to strengthen the automation foundation that has been laid. There is still need to acquire more computers for CD-ROM and Internet services. Consequently, there is need for the Government of Zambia to continue to support the Copperbelt

University Library through the Basic Education Sub Sector Investment Programme (BESSIP).

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Provision and Accessibility of Health Information to the Rural Communities in Kenya: A Case Study of Bomet District

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Abstract

This paper presents the findings of a study that examined the provision and accessibility of health information to the residents of Bomet District, Kenya. A sample of 100 respondents aged 15 years and above was selected from 10 randomly picked villages in a purposively selected location of the district. Face-to-face, semi-structured interviews were conducted and notes taken. Data collected were categorised, analysed and presented in tables, percentages, and discussion. It was found that rural people have many health information needs, most of which are directly related to their health problems. Some of these needs have not been met or satisfied by the existing information resources and services due to a number of factors that make health information inaccessible. Most of these factors emanate from the nature of the existing information and communication infrastructure and associated services. It is recommended that health meetings, visual media, adult education, rural-focused broadcast and print media as well as infrastructure supportive of health information communication should be improved. Basic health lessons need to be introduced in schools and rural information centres need to be established in the rural areas. It is also recommended that the Ministry of Health needs to put in place a policy that would promote health information dissemination.

Introduction

Good health is an indispensable prerequisite for the socio-economic development of any country. At independence in 1963, Kenya inherited from the colonial government a

system of health care that stressed purely curative services. The new government soon realised that curative services alone were inadequate, so it blended curative with preventive services. With the UNICEF/WHO-sponsored "Health for All" declaration of 1978, an integrated, multi-sectoral, and community-based strategy was adopted in the provision of health care services. This stressed curative, preventive, promotive and rehabilitative health care services. This approach, which came to be known as the primary health care (PHC) strategy, relied on awareness creation and sensitisation among the people to facilitate informed decision-making for good health. To this end, aggressive and proactive provision of appropriate and timely health information was necessary in order to empower the Kenyan communities to contribute to their own health.

Although the Government of Kenya, private organisations, and individuals have invested heavily in health care facilities and personnel as well as in the provision of health information services to the Kenyan communities, a majority of Kenyans continue to suffer from easily preventable health-related problems. Without discounting other factors, persistence of preventable health care problems indicates, to a large extent, that people lack the right health information. To effectively and efficiently satisfy the information needs of a particular user group, Odini (1993) stresses that the accessible information systems and services must take into account the characteristics and needs of the group. In view of the foregoing, a need was felt to conduct a study on health information dissemination to Kenyans in the rural areas.

The aim of this study was to examine the provision and accessibility of health information to Kenyans in the rural areas. Taking Abosi Location of Bomet District as a case, the study had the following specific objectives to:

1) ascertain the health information needs of people in Bomet District;
2) identify the types of health information channels available to the rural residents;
3) find out the types of health information conveyed by the accessible channels to the rural people;
4) assess the effectiveness of the accessible channels in meeting the health information needs of the people;
5) establish how the residents of Bomet District use information obtained from the available channels;
6) identify factors that impede effective communication of health information to people in the rural areas; and
7) suggest ways of improving the provision of health information services to the inhabitants of Bomet District.

Background Information of Bomet District

This study was confined to a limited geographical area. Abosi Location, a typical rural location, was purposively selected in Bomet District. It is an underprivileged location since it is far from urban centres and, consequently, does not benefit from health-biased organisations operating in urban and suburban areas in Kenya. It is also far removed from good health care facilities and personnel. It has only one dispensary serving a population of over 16,700 people. The location has no safe drinking water, no electricity, and the roads are in a terrible shape and totally impassable during wet seasons.

The rural people were chosen because they constitute a majority of Kenya's population as 80% of Kenya's population lives in the rural areas where it is served by only 20% of the country's health facilities. Apparently, it is the rural areas that are dependent upon for both agricultural raw materials by the agro-based industries and food for a big proportion of the urban population. Indeed, the rural population has a big role to play in the country's agriculture-dependent economy.

Related Studies

Very little research work has been done on health information needs and health information services in the rural areas of Africa in general (Okigbo, 1987; Uta, 1993) and Kenya in particular. The available literature shows that Bosompra (1987), Akong'a (1988), Uta (1993), and Kaane (1995, 1997) studied the dissemination of various facets of health information to the residents of rural villages in Ghana, Malawi, and Kenya. These studies established that rural people obtain health information through conversation with people (in various places), radio, television, books, magazines, newspapers, posters, and pamphlets. A number of information needs studies, such as Mchombu (1992), Ngimwa (1996), Mwaro (1996), and Waswa (1998), have health information appearing just as an aspect of the information needs. However, the studies identify barriers to effective dissemination of information to the rural areas as lack of coordination among the providers on the type of messages; bad timing of radio programmes, use of the wrong languages, poor quality messages, and high cost of radio receivers; low levels of literacy; and undeveloped infrastructure (electricity networks) in the rural areas.

It is evident from the reviewed literature that the rural people who form the majority of Kenya's population are yet to be studied. Commenting about this weakness elsewhere, Marden and Nicholas (1997) observe that:

> In the rush to identify the information needs of people at work or study, the information needs of consumers or the general public have been wholly neglected by information researchers. As a result, researching the consumer seems to have been abandoned to market researchers and researchers from other disciplines. It is almost as though this group was not worthy of investigation.

Sturges and Chimseu (1996) support the above observation. They argue that information science itself has neglected what is basically a non-literate society. Information scientists have specialised in researches on coherent user groups that can easily be defined. Marden and Nicholas (1997) claim that researchers have always liked studying the information needs of coherent, pin-down-able and compliant user groups. This is a big weakness especially given that the rural general public constitute the largest percentage of the population in most countries of the world, and more so in the developing countries.

Methodology

The study population consisted of ordinary men and women in Bomet District in the age cohort of 15 years and above. This age range was chosen because people in this age range were considered active in all aspects of community life and were capable of making independent decisions on their health. Since there was no sampling frame, the researcher opted to use cluster (probability) and purposive (non-probability) sampling methods to select a sample of 100 people to participate in the study. After visiting the chief and his three assistants, the authors compiled an alphabetical list of all the 42 villages in the location. These villages formed clusters. Each village on the list was then given a number from 01 to 42 starting with the first on the list to the last one. Using a table of random numbers, 10 villages were randomly selected. Since the researcher wanted such parameters as literacy level to be represented in the final sample by almost the same percentages as they were in the entire population, it was decided that 10 people be picked from each village. Specifically, given the district's literacy level of 77% and the fact that literacy affects one's information sources, four literate males and females, and one illiterate male and female in each village were purposively sampled from each of the ten randomly picked villages. This yielded 100 respondents, 50 males and 50 females. Throughout the entire process of selecting respondents, care was taken to ensure that people meeting the required criteria (age, gender, and literacy) were picked from different households.

Face-to-face interviews were conducted with the selected sample and notes were taken as interviews progressed. Interviews were preferred for data gathering because they enabled the researchers to probe and prompt the interviewees for in-depth answers. An interview schedule, consisting of a number of open and close-ended questions, was prepared. The interview schedule had five sections. Section A had questions intended to elicit information on the respondents' background, Section B had questions on the common health-related problems, Section C had information needs questions, Section D had questions on health information channels, and Section E had questions on the use of health information.

Huge quantities of data were obtained, categorised, and manually coded. This was necessary because most of the interview questions were open-ended. Responses to the open-ended questions were scanned to determine words and phrases used by the respondents. A coding system was developed and data were recorded according to the frequency at which phrases were cited. Relationships between data variables were established and presented in tables, percentages and discussion.

Findings

The researcher attempted to have primary, secondary and post-secondary levels of education represented. Those who never went to school were also represented. Table 1 below shows that 68% respondents went to school, while 32% respondents never went to school and, consequently, could not read and write. Among the 34 respondents who had primary schooling were 19 males and 15 females. Ten females and fourteen males had secondary while one female and nine males had post-secondary level of education. Of the 32 respondents who never went to school, 20 were females while 12 were males.

Table 1: Distribution of Respondents by Level of Education (N=100)

Level of Education	Females	Males	Total
Primary	19	15	34
Secondary	10	14	24
Post-Secondary	1	9	10
None	20	12	32
Total	50	50	100

This shows that literacy levels are lower among women than among men in Bomet District. Perhaps this can be explained from the socio-cultural point of view where girls are married off by their parents instead of staying longer in school to learn. This finding is in agreement with those of Uta (1993), Ngimwa (1996) and Waswa (1998). They also found that literacy level among the rural people was low. It is true that educational attainment affects an individual's ability to comprehend and, therefore, use written messages. This means that communication of health information to the illiterate and semi-literate rural population may not be effective. This implies that health information channels that favour a majority of the rural residents need to be strengthened, for example the oral and visual media.

Respondents' Work Patterns

The people interviewed in this study were of diverse occupational backgrounds. Table 2 shows that most of them were farmers (46%) and housewives (24%).

Table 2: Distribution of respondents by work patterns (N=100)

Occupation	Males	Females	Total
Farmer	30	16	46
Housewife	-	24	24
Business person	5	7	12
Student	7	2	9
Teacher	5	1	6
Forest guard	1	0	1
Electrician	1	0	1
Technician	1	0	1
Total	50	50	100

Health-Related Problems

This study sought to establish the health-related problems experienced by the residents of Bomet District. The findings revealed that most respondents were quite aware of their health-related problems. Table 3 shows that most (97%) residents cited diseases as the main problem while two-thirds (67%) of the sample population mentioned unsafe water and sanitation. The other problems mentioned included inadequate food, accidents at home, reproductive health and family planning, immunisation, and mental health. In

addition, drugs and alcohol addiction, retrogressive cultural practices, and untrained health practitioners (quacks) were mentioned.

A majority of the respondents knew well how serious each of the problems was, as they were able to rank them. It was also found that most respondents knew the possible causes of a majority of their health-related problems. When probed to explain the causes of their health problems their answers were either scientifically sound (factors that made them susceptible to the problems) or superstitious. For example, 50% respondents felt that diseases were caused by invisible micro-organisms spread by vectors like mosquitoes. The other causes of diseases mentioned and which were considered sound and informed by the researcher were: poor methods of food preparation and preservation, contaminated water, lack of waste disposal pits, use of the same and unbalanced food, unfaithful spouses, heredity, emotions, and lack of adequate knowledge of the preventive measures of some common diseases. The other indirect causes of diseases, that is, factors which rendered people susceptible to diseases, were: lack of funds to purchase basic necessities like food, mosquito nets, and materials for building structures like pit latrines, water tanks, and so on; unfavourable weather conditions which led to spring water shortage, hence making people prone to water-borne diseases such as diarrhoea, cholera, and typhoid; and ageing.

Table 3: Health Problems Perceived by Respondents (N=100)

Problem	Respondents	Percentage
Diseases	97	97
Unsafe water and sanitation	67	67
Inadequate food (nutrition)	34	34
Accidents at home	16	16
Poor hygiene	14	14
Reproductive health	11	11
Immunisation	3	3
Mental problems	3	3
Drug/alcohol addiction	2	2
Cultural practices	1	1
Untrained practitioners	1	1

Some perceived causes of diseases were superstitious. For example, six respondents argued that diseases were caused by evil spirits while two said some diseases were caused by overlapping shadows of a sick and a healthy person. The latter was, to the researchers' understanding, some kind of misinformation which may have initially been meant to isolate the sick people. The six respondents who said evil spirits caused diseases were of various ages ranging from 16 to 73 years. Four of them had primary education; one had post-secondary level of education while one had no formal education. Of the two respondents who said diseases were caused by overlapping shadows of a sick and a healthy person, one was a 74-year old male with no formal education while the other was a 21-year old female with secondary level of education. From this analysis, it is difficult to establish with certainty whether or not age and educational attainment were contributory to this misinformation. Perhaps this misinformation was due to deeply entrenched beliefs.

The same pattern of socio-economic capabilities and cultural values was noticed for the other causes of health problems. Unsafe water and poor sanitation was attributed to lack of money for putting up waste disposal pits and to purchase rain-water harvesting facilities, lack of protected water sources, and the belief among the Kipsigis that any water is harmless (*toiyoon bei)*. Nutritional deficiencies and related diseases were attributed to the general state of poverty among the residents, unfavourable weather conditions, and lack of adequate knowledge of both better methods of farming of different varieties of food crops and balanced dietary requirements. A majority of those who mentioned accidents at home as a problem could not tell their possible causes. However, a few (5) respondents felt they were caused by sheer carelessness in, say, handling and storage of drugs and chemicals, sharp objects, grains, and so on.

Lack of time, funds and knowledge of their importance coupled with unfavourable cultural beliefs were cited as major causes of poor hygiene, poor attendance to clinics for immunisation, and unfavourable attitudes toward family planning methods and related issues. Mental health problems and addiction to drugs or alcohol were attributed to personal problems, especially of socio-economic nature. The presence of quacks, which was seen as a problem by one respondent, was attributed to lack of adequate health care workers in the location. Furthermore, the respondent was not aware who was and who was not qualified. In short, therefore, respondents' perceived causes of health-related problems reflected their economic capabilities, socio-cultural beliefs, and their levels of awareness of health matters.

The study further attempted to find out the actions that respondents took and where they turned to for assistance when faced with health problems. The findings showed that rural

people took many and varied actions. Although a majority of the respondents took proper and medically acceptable steps to solving the problems, a significant proportion of them took completely misinformed decisions and steps. For example, a young married lady claimed that she took a cold shower to relieve fever. This misinformation may be attributed to the respondents' cultural background and traditional beliefs.

Rural residents face many health-related problems such as diseases, water and sanitation, accidents at home, hygiene, reproductive and mental health, among others. Some respondents either did not know the probable causes of these health problems or were extremely superstitious and therefore took poor or misinformed decisions in solving the problems. This underscores the need to provide, in the most efficient and effective way, health information to this population. Good health information would enable them to identify their problems and causes and to decide better actions to take to solve them.

Health Information Needs

The respondents were asked to indicate their health information needs. The findings presented in table 4 below indicate that most respondents (78%) needed information on the common diseases, specifically: causes, incubation period, symptoms, modes of disease transmission or spread, and treatment. A majority of the respondents also cited a need for information on various issues concerning water sanitation, hygiene, and nutrition. Other health information needs are presented in table 4.

Rural people need various kinds of health information. Among the needs mentioned, which were related to their health problems, were diseases, water treatment and sanitation, food and personal hygiene, nutrition, reproduction, child and maternal care, medicines and agrochemicals, and trends in various aspects of health. This implies that health-related problems must not be ignored in the provision of health information because they are good indicators of the consumers' needs. Gray (1989) supports this conclusion, arguing that, more often than not, users seek information when they have problems to solve.

Table 4: Health Information Needs of Respondents (N=100)

Information need	Respondents	Percentage
Diseases	78	78
Water treatment and sanitation	70	70
Personal and food hygiene	60	60
Nutrition	59	59
Reproduction and family planning	31	31
Child and maternal care	25	25
Medicines and agrochemicals	15	15
Accidents and first aid	12	12
Dental care	8	8
Immunisation	7	7
Mental health	4	4
Health care providers	3	3
Drug and alcohol addiction	2	2
Physical exercises	2	2
Trends e.g. in blood transfusion	1	1

Sources Consulted for Information

The respondents were asked to state the available and accessible sources of health information in their district. Their responses indicated that they obtained health information through various systems, resources, and services. These included:

- Commercial enterprises or agents such as shops, chemists, kiosks, etc, which sold medicines and agrochemicals;
- Community-based organisations, for example youth groups, women groups, and self-help (harambee) groups, among others.
- Religious groups and organisations such as the Catholic Church, 7th Day Church of God (COG), and Africa Gospel Church (AGC);
- Government and non-governmental organisations (NGOs) or agencies and facilities, for example rural health facilities (RHFs), AMREF and World Vision International;
- Educational institutions, which included schools and associated activities such as sports, science congresses, music and drama festivals, among others;

- National and international information organisations and institutions. These were radio and TV broadcasts such as the Kenya Broadcasting Corporation (KBC), British Broadcasting Corporation (BBC), Voice of America (VOA) and Deutsche Welle (DW); and
- Individuals within or even outside the above mentioned systems and resources who were within the reach of the rural people. Table 5 below gives a summary of their responses.

Table 5: Health Information Sources (N=100)

Health information source	Respondents	Percentage
Friends, parents, relatives	82	82
Health care workers	78	78
Radio	74	74
Posters and other visual aids	51	51
Books	44	44
Chiefs and administrative leaders' meetings	44	44
Religious leaders	33	33
Newspapers	32	32
Herbalists	22	22
Television	22	22
Magazines	15	15
Films and video shows	15	15
Teachers	15	15
Seminars and workshops	13	13
Agricultural extension workers	12	12
Recorded music and audio recordings	12	12
CBOs and other groups' leaders	10	10
Drama and plays	8	8
School-going children	6	6
Leaflets, booklets, pamphlets	6	6
Demonstrations and exhibitions	4	4
Agricultural Society of Kenya (ASK) shows	3	3

The above results show that the residents of Bomet District obtained health information from oral, print, audio, visual, and audiovisual sources, or a blend of these media. These findings are in harmony with certain elements of earlier works by Bosompra (1987),

Akong'a (1988), Mchombu (1992), Uta (1993), Kaane (1995, 1997), Ngimwa (1996), and Waswa (1998).

Rural residents know the potential sources of health information and the reasons why they are inaccessible. This conclusion is made from the finding that some respondents were aware of a variety of inaccessible health information sources and the probable reasons behind their inaccessibility. Among the inaccessible channels mentioned were libraries, folk songs, and national as well as international health associations and organisations. It was found that libraries and health organisations operated in urban areas with no branches in the rural areas. It can be concluded further that information services provided by libraries and health organisations do not reach the rural majority. This implies that Kenya National Library Services (KNLS) should intensify its rural services. The rural people should be sensitised on the importance of folk media in the transfer of health information. National and international health associations and organisations should also strengthen their services in the rural areas.

Assessment of the Information Sources Consulted

Respondents were also asked to state whether or not the sources satisfied their information needs. The findings revealed that the sources did not fully address what respondents needed. Among the broad aspects of health which were not fully addressed by the sources were nutrition, diseases, accidents and first aid, reproductive health, medicines and agrochemicals, water and sanitation, physical exercises, and mental health. However, no respondent knew exactly what the sources did not address, for example, on nutrition, diseases, etc. The sources could not fully address these needs because of the following reasons:

- They lacked time to present health matters exhaustively. Respondents, too, lacked time to make full use of radio, health care workers, *barazas*, friends and relatives, among others.
- Certain sources addressed respondents' problems long after they had arisen, showing some lack of timeliness in health information provision.
- Some sources failed in the past to offer workable solutions to respondents' health problems and, as a result, had lost respondents' confidence in them.
- Some sources were unavailable, lacked variety, and were scanty in content. For instance, books, newspapers, magazines, films and videos were relatively unavailable and lacked variety while some posters were too brief in content.

Some respondents, however, expressed satisfaction with whatever was available and accessible to them. If problems raised above were taken into account by information disseminators and information service managers, health information provision would satisfy the needs of users better than it did.

When asked whether or not they preferred certain health information sources to others, respondents gave varied responses. A critical look at their responses, however, revealed that they exhibited preferences for some health information sources. For example, table 6 below shows that among the 96 respondents who cited oral media (conversation), 71 (74%) preferred using them while 17 (17.7%) did not prefer them.

Table 6: The Main Information Source Formats

Source Format	Preferred	Not Preferred	No Comment (Neutral)	Total
Oral or Verbal	71 (74%)	17 (17.7%)	8 (8.3%)	96
Audio	53 (69.7%)	20 (26.3%)	3 (4%)	76
Visual	39 (57.4%)	29 (42.6%)	0 (0%)	68
Print or Written	36 (65.5%)	18 (32.7%)	1 (1.8%)	55
Audiovisual	17 (53.1%)	15 (46.9%)	0 (0%)	32

These findings concur with those of Bosompra (1987), Odini (1995), Kaane (1995), Waswa (1998) and Yeboah (2000) who established that the major sources of awareness in the rural areas were oral channels. Bosompra (1987) and Uta (1993) also found that audio media (radio) were the next most popular sources among the rural residents. This implies that health messages can reach a majority of the rural people if these media preferences were considered and optimally utilised. It was found that respondents' preferences of sources were dictated by one or more of the following factors:

- Variety of topics addressed and the exhaustiveness of an information source;
- The ability of a channel to be used with other means of information communication at the same time;
- Ability of the channel to provide feedback;
- Ease of understanding;
- Authority in health-related issues;
- Convenience or cost involved;
- Reliability and regularity;
- Currency of health information conveyed; and

- Location or possession of a given channel, for example, radio, television, etc.

Application of Health Information Obtained from the Accessible Channels

Most of the respondents (90%) said they utilised the health information obtained from the accessible channels. The uses of health information were in line with the purposes for which the same was needed and sought. These were to: prevent diseases; lead healthier life; be able to advise others; save or reduce medical expenditure; be able to seek early and appropriate help; have peace of mind; be like others; prevent or reduce accidents; build up vocabulary for future medical training; and for current awareness. A few people (9%) did not apply what they got from the accessible channels. Reasons cited for this included traditional beliefs and values, lack of time and different personal priorities, carelessness, ignorance, and financial constraints.

Problems Affecting Dissemination of Health Information

When asked to list impediments to effective and efficient communication of health information to the rural areas, respondents mentioned several factors that adversely affected this communication. The same factors are believed to have adversely affected effective utilisation of health information. These factors included:

- Prohibitive distances to some health information resources and services such as libraries and health facilities;
- The priorities of some sources were different from those of the respondents in so far as health information communication and reception were concerned;
- Lack of time to use the available channels;
- Unavailability or unaffordability of some sources;
- Respondents' own negative attitudes toward certain channels;
- Low levels of literacy;
- Retrogressive or unfavourable cultural values;
- Poor road network and generally undeveloped infrastructure;
- Some opinion leaders' unwillingness to disseminate health information; and
- Technical or personal message interruptions.

Some of the above barriers are similar to those identified by other studies. Uta (1993), for instance, established that bad timing, wrong language, poor quality messages, and

high cost of radios and batteries hindered the use of audio media by the rural people. Akong'a (1988), Kaane (1995) and Waswa (1998), on the other hand, identified low literacy levels, lack of time, poor infrastructure, and economic and cultural constraints as barriers to information dissemination in the rural areas.

Conclusion

The study concludes that a majority of the rural population is either semi-literate or illiterate. This does not only hinder effective use of a variety of the accessible sources but also the making of sound health decisions, proper comprehension of the messages received as well as their perception of health issues. Rural residents face many health-related problems. Although some rural people know what causes these problems and how to solve them, a significant proportion of the rural residents neither know the causes nor the solutions to their health problems.

The rural people need various kinds of health information. Most of these needs were related to their health problems, namely diseases, water and sanitation, medicines, and so on. To satisfy these information needs, most people in the rural areas used oral- and audio-oriented sources. Some of the accessible sources did not fully address the rural residents' needs and, consequently, had not been effectively used.

Kenyans in the rural areas use health information obtained from the accessible sources to solve their health-related problems. However, some health information sources, such as libraries and health-oriented associations or organisations, were not accessible in the rural areas. This is because rural areas have poor infrastructure and libraries as well as health organisations do not have branches in the rural areas.

Recommendations

From the findings and conclusions of this study, the recommendations that follow have been made to improve the communication and use of health information by the rural people.

Strengthen Face-To-Face Health Meetings

It was found that the most popular sources of health information communication to the rural residents are oral channels. There is need, therefore, to strengthen these channels,

especially face-to-face meetings, to minimise the time the rural people take to obtain health information. The Ministry of Health and NGOs which specialise in health issues should organise and hold more and regular health meetings, talks, seminars, demonstrations or exhibitions in the rural areas. This should be done in collaboration with opinion leaders making use of groups' meetings, religious and ceremonial gatherings, and other festivities. Face-to-face meetings can be enhanced if the MOH and other sponsors organised regular locational medical camps. During these camps, medical personnel should hold talks or seminars with the rural inhabitants. To improve attendance at these programmes, medical services should be offered free of charge during such camps.

This study established that Abosi Location with a population of 16,756 had one enrolled community nurse. The nurse admitted he did not have time to talk to patients. It is recommended that the government should train more health care workers to work in the rural areas. In order to retain their services, better terms and conditions of service should be offered to them. Alternatively, selected opinion leaders should be trained in community-based health care to assist in the communication of health information to the rural people.

It was found that all the community-based organisations (CBOs) were business oriented. It is true, therefore, that health issues take the lowest position on their priority lists or agendas. In order to change this position, the government should encourage the rural residents to form health oriented CBOs. These organisations, in collaboration with the community development assistants (CDAs), should establish and execute various health programmes aimed at educating the rural masses on various pertinent health issues.

Improve Communication Support Infrastructure

In order to enhance access to health information by the rural population, and especially through print and electronic media, the government should improve and maintain infrastructure supportive of such media, e.g. roads and electricity. This would not only facilitate wider, efficient and effective communication of health information, but also efficient transportation of agricultural produce to the market and encourage rural businesses and industries. Improvement in the rural peoples' income would empower them financially to enable them afford the purchase of information sources, such as radios, books, newspapers, and magazines, among others.

Enhance Visual Media

It was established that 51.5% of the respondents used visual media as sources of health information. Despite this, some respondents complained about the location, language, and clarity of the messages contained in them. It is imperative, therefore, that the major health players should supply schools, shopping centres, churches, offices, markets and other public places with posters and other visual media conveying various health messages. This would minimise the problem people experience visiting the nearest health centres to access posters. It would make health messages relatively accessible to the semi-literates and the illiterates, compared to the purely print media. The rural inhabitants must be taught not only the messages contained in the visual media but also how to extract meanings from the media.

Strengthen Adult Education

It was found that women were disadvantaged in accessing health information through a variety of formats. Although illiteracy might be diminishing in Kenya, the semi-literates are many and face a danger of lapsing into illiteracy. For these people to remain literate, the government must strengthen adult literacy classes. At the time of data collection, adult education was no longer active in the location. The government should, therefore, conduct studies to identify the factors that have affected adult education programmes with the hope of alleviating the situation. The rural people must be encouraged to enroll and attend these classes. Adult literacy classes do not just maintain a state of literacy among the rural inhabitants but also educate them against misinformation and dispel myths that are currently entrenched in their culture.

Allocate Adequate Resources for Communication

Interviews conducted with district health care workers revealed a critical lack of a proper and specific action plan for the health department in Bomet District. This means that inadequate resources are allocated for health activities, including health information dissemination. To solve this problem, the government, through MOH, should develop an unambiguous plan of action for each district and this should be backed by adequate resources such as health care workers, funds, and posters, among others.

Improve Rural-Focused Broadcasts

The findings show that the people of Abosi Location listened to the Kalenjin and Kiswahili services of the broadcasting station, KBC. This implies that for health messages to reach a wider section of the rural population, the messages should be channeled through the broadcasting station. In this regard, the government and other broadcasting stations receivable in the countryside could introduce more rural-targeted health information programmes. The programmes could be communicated in the vernacular. The existing and proposed health programmes could be aired in the evenings or on weekends when most family members would be at home so that it would reach a bigger audience.

Introduce Health Instructional Courses in Schools

It was found that some rural people (parents) obtained health information from their school-going children and teachers. Most rural people obtained health information from oral sources and all respondents who cited school-going children as a source of health information trusted them. To maximise the effectiveness of this mode of information transmission, the government needs to explore the possibility of strengthening this source of information through the introduction of non-examinable health instructional courses in primary and secondary schools. The researcher supports the sentiment expressed by the respondents that the health programmes would create awareness among the children (who are future parents) and their parents or siblings.

Improve Rural-Focused Print Media

The findings show that some rural residents obtained health information through the print media. However, language barrier and exorbitant prices of the print sources hinder widespread use of the media by the rural people. Therefore, as the case with the broadcasts, the print media should establish rural editions to counter the language barrier. These editions could go at greatly subsidised prices. The government needs to set aside some funds to support the rural press. All health leaflets, pamphlets, and booklets intended for use in rural areas could be in simple Kiswahili or local vernacular. This would ease understanding of messages carried by them.

Establish Rural Information Resource Centres

This study found that literate and semi-literate rural inhabitants made use of books, newspapers, magazines, and other printed health literature. The government therefore may have to establish and stock rural information resource centres in every division or location. Some NGOs with health bias can also assist on this.

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Competing for a Slice of the Budget Cake: An Academic Library Perspective

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... in library work - as in baseball - the most persuasive argument is the one that ultimately relies on the effective presentation of pertinent and reliably gathered statistics (Smith, 1996).

Abstract

This paper examines the different ways in which a library could obtain a larger slice of the budget cake. These include leveraging of library assets to enhance funding, relating funding to mission, the use of library statistics (both internal and external), lobbying, and a strong show of support from users. It notes that the absence of readily available sources of library data in South Africa is an impediment to using comparative statistics in arguing for more money, and suggests that the directors of libraries should pay attention to this. Observations are based in part on experience as well as from the literature.

Introduction

A library administrator who served a 16-month appointment as interim assistant vice-chancellor for administration at a mid-sized public university observed that the library rarely features in the top ten priorities of institutional administrators. Administrators are more preoccupied with large scale and strategic issues of accreditation and re-accreditation, state department of education, recruitment and retention of students and

staff, development and capital renewal of physical plant. In addition, they are saddled with the multiple challenges of distance education and online instruction, foundations, faculty governance committees, reporters and local TV anchors, alumni and donors, and competition from other universities (Houbeck, 2002). He goes on to say that the library possesses more assets than it knows and that:

> If we are alert, imaginative - and patient, we can over time use those assets to enhance our chances first of being noticed, then of securing support. Key, though, to getting noticed is identifying clear links between library assets and the needs and interests of the campus as seen through the eyes of university administration.

The assets that he alludes to include the central role of the library in access to published academic knowledge; a cadre of professionals experienced in managing change and in developing assessment instruments that match resources with outcomes; an ethos and record of success in collaborative projects; and significant development potential and successes.

In my experience in four academic libraries and one research library, I know of only one university library in sub-Saharan Africa that always endeavoured to expend its generous budget, especially for books and periodicals, before the fiscal year ran out. The economic reality is that inflation has eroded the purchasing power of libraries worldwide, while at the same time there has been a continuing rapid increase in the amount of published information. The cost of scholarly information for teaching, learning, and research is constantly increasing. This situation is exacerbated in the developing countries by the ongoing devaluation of their currencies, which has resulted in a decline of purchasing power. The increases in the library budgets do not keep pace with the inflation in periodical prices and output of books.

Budgeting Process

In higher institutions in South Africa, the government allocates funds to institutions on an annual basis. These allocations are calculated on the basis of student numbers, pass rates, level of study and whether or not the students are studying natural or human science subjects. The allocation is then subject to a "cut" – which is the level of funding the government is prepared to make against its "own formula". This is known as the "A" factor, and is usually made known in the last week of December before institutions close.

Institutions first determine indicative budgets and hold back a proportion until the overall financial position is known.

The basis of budget allocation in higher institutions varies, but most operate on a historic basis, i.e. this year's budget is related in some way to last year's. Usually the process takes the following form:

- calculate *this* year's cost of staff, materials, administration;
- add allowances for inflation in *next* year;
- add estimates for costs of new activities to be undertaken next year;
- submit estimated budget to higher authority (Finance Committee, Finance Director);
- allocation for next year made by higher authority;
- if allocation is less than estimated budget, revise estimates downwards (Ford, 1991).

Every year, deans, directors and administrators gather for the budget review process, with everyone competing for a rung on the priority ladder. In most institutions, there simply is not enough money to pay for all the services needed and expected by the members of the institution. Ford (1991) observed that most libraries are effectively competing for funds with other services and departments within the same organisation. In the higher education sector, academic libraries compete with teaching departments, administrative services and student unions; in research institutions special libraries compete with research laboratories, marketing departments, and other facilities and services. It will be surprising if there is any library director or manager who does not have to compete annually for funds with other departments. Presumably, most library directors would be happy to receive a handsome fixed percentage of the institutional budget annually.

Libraries have tended to use the percentage model in arguing for more funds. The question is what percentage is appropriate? There is a mythical rule of thumb that academic libraries should get at least six per cent of the institutional budget. Ford gives a good account of how the 6% myth arose, and refers to it as an interesting example of the misinterpretation of figures. He observes that this figure has since often been quoted out of context as a desirable minimum for all university libraries, although this was never intended. Further, he notes that the same group of experienced librarians who developed the 6 % model for a medium-sized university indicated another way of calculating a model budget, and showed that for the same medium-sized university, the proportion spent on the library should be closer to 10 per cent.

John Willemse (2002) presented a comprehensive account of standards and norms in his 31-page report on 'Adequate financial support for African University libraries' presented to the 5th SCANUL-ECS Conference. He mentioned that in the Association of College and Research Libraries (ACRL) and in Britain the Parry Report recommended six per cent, and that some recommendations go as high as eight per cent.

One of the many conclusions that Willemse reported was that:

> Although the situation differs somewhat from country to country, SCANUL-ECS universities should spend at least the following from their budgets for current expenditures on the library:
>
> - more than 6% if excellent service is required;
> - 5% if a normal, generally acceptable library service is required;
> - at least 3% if only a minimal library service is required.
>
> The extent of the quality will obviously depend on the level at which the university is funded.

Specifically for South Africa, and based on SAPSE (South African Post Secondary Education) funding formula, he concluded that:

> A norm for the provision of library resources equal to the cost of three books per FTE (full-time equivalent) per annum should be accepted. The way in which the costs of books should be determined needs to be considered.

The prescription of six per cent given in the Association of College and Research Libraries (ACRL) *Standards for College Libraries*, 1995, does not appear in the *Standards for College Libraries*, 2000 edition. It seems that the ACRL has chosen not to be prescriptive any longer on this issue. I agree with Ian Winkworth's observation that:

> there is no such thing as a 'correct' size of library budget or 'correct' balance of spending ... the key feature is meeting the objectives of the parent institution at least possible cost, not achieving some idealised model of library operation (Winkworth, 1991).

The library represents one of the largest cumulative capital investments on any campus. The essential capital investment base of library service includes the collections, the buildings and the equipment. It is essential to maintain these investments through ongoing annual investment in order that the investments retain their value, as neglect is

likely in due course to affect the effectiveness of library operations. However, it is important to realise that the capital renewal needs that confront every academic institution are many. How can the library manager make the best possible case for a larger slice of the budget cake?

Obtaining a Larger Slice of the Budget Cake

There is no single approach that the library can use in the competition for resources. Any approach will be dependent to a large extent on a multiplicity of factors, especially the internal politics of the institution. Meraz (2002) observes that whether one reports to a city council, a university board, or a corporate division, securing budget funds - and, for that matter, most other operational resources - is a process of preparation, justification, persuasion and commitment. The library budget should meet the reasonable expectations of library users when balanced against other institutional needs. And the library should utilise its financial resources efficiently and effectively.

The means by which a library could obtain a larger slice of the budget cake include:

- relating funding to mission;
- the use of library statistics (both internal and external);
- lobbying ;
- a strong show of support from users; and
- the leveraging of library assets to enhance funding.

Relating Funding to Mission

Can funding requests be related to institutional objectives in a way that administrators will comprehend? There is the view that it is easier to keep the funds rolling in if one can relate the library's funding request to the institution's mission, or formulate budgets to meet agreed objectives.

In this regard, libraries are using the conspectus as a collection assessment instrument for establishing the strengths and weaknesses of their collection (Streby, 1999). The findings from a conspectus study or any similar quantification study provide an invaluable base for the development of a viable collection development policy. Administrators would no doubt be pleased to see a comprehensive study that:

- compares the relative strength of holdings in a given discipline with the level of academic programme that portion of the collection is intended to support;
- assesses the level of current acquisitions relative to level of programme;
- indicates exactly where the library is strong and weak and the amount that would be needed to bring the collection or acquisitions rate to a specific level; and
- indicates exactly what a certain amount would buy.

Houbeck (2002) observes that:

> ... investing in this sort of assessment instrument is the critical first step in evaluating and then managing the match between library resources and academic programs. Without such a tool, it is assessment by anecdote.
>
> A good assessment tool is expensive to create. It will not guarantee dollars. But it puts meat on the bones of funding requests, specifying all too vividly those uncomfortable gaps between program level and resource.

He is also of the view that a library that commits itself to the assessment of its collection and other operations provides university administrators with a model for cultivating within the institution an ethos of matching resources with outcomes.

Quite often, when librarians talk of inadequate funding they provide little or no evidence to quantify this. Recently, University of Witwatersrand Library adopted a budget allocation formula at the University of the Witwatersrand for the allocation of the library materials budget. This is in line with the University's increasing devolution of activities to faculties and their schools; the devolved budgeting model places financial responsibility for the expenditure of allocations within faculties. This transparent method of allocation has resulted in a more active response from academic departments to the overall allocation that the library receives from the university administration, and two faculties have recently written letters to the University's senior management expressing concern at the inadequate funds available for material resources. One school went as far as quantifying their needs in rand terms using such factors as student enrolment figures, courses taught, average cost of books, number of significant books published annually and requirements for journals. The school even obtained book allocation figures in some universities to support its case. This is the sort of information that libraries should provide to institutional administrators when asking for more funds.

Opinions are divided as to the value of formulae in distributing the materials grant. In my experience in two universities, the use of a formula in the allocation of the materials budget proved advantageous to the library despite the disquiet and occasional unhappiness with the weights given to some of the elements used in the formula. A

budget allocation formula leads to a partnership between academic departments and libraries, provides a transparent allocation methodology and provides financial accountability.

Use of Library Statistics

I concur with Smith's view that nothing supports an argument better than the hard facts of quantitative evidence. He observes that:

> Despite popular sentiments implied in such expressions as "lies, damn lies, and statistics," numerical data are the *lingua franca* of the public and private sectors. Anecdotal information can be effective, but in library work - as in baseball - the most persuasive argument is the one that ultimately relies on the effective presentation of pertinent and reliably gathered statistics (Smith, 1996).

It is crucial for the library to routinely collect data that reflects how the library is meeting its objectives. This data should be presented so that it reflects internal trends, and becomes more useful when amplified by comparative studies defining the library's position in relation to standards, national norms, or ranking among peer group or competitive institutions (Sacks and Whildin, 1993). An authoritative statistical study identifying an institution's standing within a peer group is useful in convincing institutional management of the need for more resources; it is important to use peer groups acceptable to management.

Smith's illuminating article focuses on three major budget areas: staff, collections, and facilities. It provides guidance on deciding which data are relevant to a specific argument, and provides examples of ways in which a library can show it is leading or lagging behind, using comparison groups, means, medians, and percentiles, and an illustration of the effects of inflation.

The following illustrations of materials expenditure in nine fictional universities are adaptations from his article.

Table 1: Ranking of universities by population and by expenditure

University	Population (FTE)	Rank	Materials expenditure per FTE (R)	Rank
Mossel Bay University	19,452	1	10.44	6
Sedgefield University	15,712	2	8.29	9
Oudtshoorn University	13,635	3	9.74	8
Plettenberg Bay University	12,567	4	10.33	7
Wilderness University	11,894	5	14.85	1
Stormsriver University	11,871	6	10.53	5
George University	10,578	7	12.17	3
Tsitsikamma University	10,357	8	13.56	2
Calitzdorp University	10,076	9	11.02	4

Note: Population served is a common criterion used to create comparison groups.

Smith reminds us that data collection is a science, but data presentation is an art. Rightly so! The table above shows that of the nine universities listed, Sedgefield University Library serves the second largest population with the lowest level of materials expenditure. Such information will no doubt provide a persuasive argument to support Sedgefield University Library's campaign to increase the library's materials budget. While the above illustration using comparison groups is useful, knowing the library's income and expenditures in relation to the median for all libraries in the country can also be very useful. It is important to demonstrate the effect of inflation on the increases received, since otherwise, the relative value of the numbers will be misleading, especially if the financial data are given over several years.

At present, it is difficult to compile comparative reports because there is no major source of published national library statistics in South Africa. Inter-library comparisons tend to carry a lot of weight with decision makers, and there is an urgent need for directors of libraries as well as the national library association LIASA to pay attention to this. The Forum of University Librarians in South Africa (FULSA), at its last meeting held in

Durban on 6 August 2002, set up a task team to look into ways of developing a uniform way of collecting institutional library statistics.

Lobbying/Advocacy

Meraz (2002) observes that lobbying is, in some ways, a competition among priorities, and that whatever is the most pressing is what will be funded. She advises that knowledge of lobbying techniques is useful in promoting library needs to decision makers, and provides detailed tips in three areas related to lobbying including positioning oneself to be an effective lobbyist; making the most out of the "lobbying meeting"; and the lobbying arena (Meraz, 2002). Web (2002) suggests that library friends and the community could be good weapons in the advocacy process as their strong show of support could impact on decision makers (http://www.friendcalib.org/newsstand/f5web1.htm).

The following guidelines are useful in the lobbying/advocacy arena:

- The library administrator should have the knowledge and approachability that will gain the confidence of decision makers. Understand the climate in which you and your organisation operate. Know to whom to talk, and know to whom you are talking. Prepare yourself and make readily available the funding pattern of the library for the past five years.
- Set priorities, and do not be seen as someone who asks for the moon and has no real sense of practicalities, i.e. ask for what you really need. Be, or at least appear to be, reasonable. Take decision makers' concerns seriously, address them, and be willing to respond to those concerns in your request if at all possible.
- Establish an ongoing relationship with your library committee. They are usually strong advocates on library issues, and their concerns should be taken seriously.
- Get others to argue your point. The views of the customers carry a lot of weight with decision makers. There is an added advantage in cultivating friends and allies, which is crucial in institutions driven by the recommendations of committees.
- Showcase the library at every opportunity. Promoting library services must be as much a part of what a library does as circulating materials. Sponsor events that highlight the library's importance to the community, such as celebrating a major anniversary (25th, 50th, and 75th, 100th or other). Sponsor an open house to show the community what has been achieved up to now and what is planned for the future.

- Follow up – remember to send a thank-you note. And keep the decision makers informed about the library's activities and the progress of your request.

Strong Show of Support from Users

A library with high visibility on the campus tends to have a strong show of support from users. The library administrator should know his/her library users and connect lobbying platform to their needs.

The library should use every available opportunity to provide leadership and show initiative. Examples of activities that improve the library's visibility include a good current awareness service; availability of a quality library instructional programme; well-organised web pages as well as catalogues with hot links. Establish a role for the alumni and surrounding community as they can be used to serve the interests of the institution as well as those of the library.

Conclusion

While library managers should endeavour to increase the library budget, they should also manage such resources with care and prudence. Library administrators need to give administrators reasons for seeing the library as an entity that is worth the investment. They need to hear from various quarters, and see, where possible, that the library is central to academic discourse on the campus, and that it is integral to the mission of the university. The justification for continued and increased funding depends on the ability of library administrators to demonstrate how they are meeting institutional goals and how the library programmes are well used and resources are utilised.

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The Information Society and the Nigerian Print Media

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Abstract

This work reports on the extent to which the Nigerian print media have been transformed by ICTs in order to function in the evolving information society. Almost all the print media in Nigeria are using a wide range of ICTs, each according to its needs and what is affordable. The pressure to invest in ICT applications derives from three causes: (1) The stiff competition among the media organisations in the last five years accentuated the need to gain competitive advantage; (2) ICTs have become a strategy for meeting organisational goals for survival, and for enhancing profit level; and (3) the media organisations are quite conscious of developments in the information society and the changing role of the print media in the emerging information economy and, so, are prepared to meet these challenges. The areas that are going to engage more attention are electronic publishing, online access, multimedia applications, advertising, and electronic commerce.

Information Society

The world is moving rapidly into the maturity stages of an information age that is being driven by an acceleration of advances in information and communication technologies (ICTs). According to Marchioni (1997), the general consequences of the information society are three-fold: (1) larger volumes of information, (2) new forms and aggregation, and (3) new tools for working with information. Living in an "information society" implies dealing with a barrage of information on a daily basis, with success and survival dependent on the ability to locate, analyse, and use information skilfully and appropriately. Information literacy, which has been defined as the ability to effectively access and evaluate information for a specific need, requires certain integral skills, including the ability to evaluate information or to plan a search strategy (Hubbard, 1987).

In the information society, organisations are increasingly becoming knowledge-based and knowledge processors. Snow, Miles and Coleman (1990) observed that the integration of cultures, languages, and business acumen through horizontal, vertical and related diversification strategies of global corporations and network organisations serves as a reminder of the wide array of knowledge needed by organisational participants to ensure the organisation's competitiveness or survival. The role of ICTs in the effective and efficient knowledge-handling is such that ICT infrastructure constitutes the core of an organisation's competitive strategy.

Webster (1994) distinguishes, analytically, five definitions of an information society, each with its identifying criteria, including technological, economic, occupational, spatial and cultural approaches. The conceptual contents of these approaches are not mutually exclusive. Definitions based on technological criteria emphasise technological innovation. Interest is on the growing information processing, storage and transmission capabilities of information technologies. The world has been strung together into a global village in which various segments of the real world are reconstituted into or mirrored in a virtual reality. So, one can consider the world as undergoing large-scale transformation in which the traditional institutions and socio-economic systems are being replaced by virtual equivalents.

The economic approach to information society focuses on the size and growth of the information industry and its contribution to the gross national product. Indeed, information has come to occupy a centre stage as the key strategic resource on which the organisation of the world economy depends. According to Schiller (1988), information has become valuable because it has undergone a historical process of reorganisation that has transformed it into a commodity. Schoonmaker (1993) emphasises this economic base of the information society by the title of a paragraph in her work, namely "Information Society or Advanced Capitalism The word capitalism may have been replaced by a more pleasant euphemism, the "market economy," but that does not change the capitalist approach to information. Like every other commodity in capitalism, information is increasingly produced within and for a market by wage labour.

From the occupational point of view, the information society is seen as bringing about tremendous revolution in the world of work. In the first place, a preponderant proportion of the workforce is in the information industry or in information intensive jobs. Just as the meaning of the office as a place where the staff of an organisation stay for hours to do their job is changing, so also are the job contents of occupations undergoing continuous redefinition. Closely related to the occupational conception is the spatial conception of

the information society. The emphasis is on the information networks that connect locations and, consequently, have dramatic effects on the organisation of time and space.

Cultural conception looks at the transformation of social life by ICTs. The role of electronic and print media in the dynamics of social life and relations has assumed a position of dominance. These media organisations are gradually displacing or competing with the traditional institutions for education and entertainment. Hybridisation of ICTs has created new facilities for recreation, advertising, trading, shopping, and various types of social engagement.

In this study the information society is understood to be a complex multidimensional phenomenon that has all the conceptual expressions described above. However, we shall lean more towards the technological expression, which encompasses ICTs and their role in mediating the interplay of all the other dimensions.

ICTs in the Print Media

The impact of ICTs and, therefore, the progress of the information society is, perhaps, most evident in the information industry itself. This is obviously the result of new emphasis on information as an economic commodity of national and global interest. The need for adequacy, accessibility, accuracy, timeliness, and appropriate format in information management and services was, in fact, a primary factor in the convergence of technologies that produced the ICTs.

A major aspect of the information industry is the print media. Following the invention of the printing press, they became, until recently, the main channel of communication and social exchange within national borders and across the world. They literally moved the economic, socio-cultural, and political systems of society. Their fortune in the information society is certainly an important issue. The traditional function of the print media is to inform, educate, and entertain; to examine fairly and critically contemporary issues; to make constructive contribution to thoughts and discussion on matters of public policy; and to provide a forum for the general populace to express their ideas and opinions. It is obvious that the process of globalisation and the dominating influence of ICTs have conferred more roles on the print media. MacBride and others (1980) have redefined the functions of the mass media to include information, socialisation, motivation, debate and discussion, education, cultural promotion, entertainment, and integration. On the question of integration, it is observed that the media have to brace up for the increasingly demanding role of providing to all persons, groups and nations, access to the variety of information which they need in order to know and understand each other and to appreciate others' living conditions, viewpoints and aspirations, as well as the role of providing support for the dynamics of the global economy and politics. In order to fulfil these roles the press of today depends greatly on the progress in ICTs.

Balboni (1993) predicted that an explosion in the availability of news and information sources that can be accessed directly by the end-user without an intermediary journalist would occur; online multimedia information databases would proliferate; interactive elements in all media would be introduced; and that the movement away from mass media to more targeted, direct media vehicles would continue. With such a development, the most vulnerable part of the mass media would be the print media considering the unusually high premium being placed on speed of transmission and dissemination, high capacity storage, hypertext links, and attractive interface. The pressure for survival has, in fact, imposed on the print media the greatest momentum for innovative transformation. As a matter of fact, the print media could be regarded as the first organisations to embrace ICTs in the whole world. According to Laudon, Traves and Laudon (1995), "until now the most powerful information technology has been the printed word and the first information explosion resulted from the invention of the printing press". Woal and Corn (1987) noted that as electronically mediated communication became more prevalent, print was regaining the original pictorial qualities which graphemes (written signs) had lost when primitive pictographs (or picture writing) and ideographs (simplified graphemes used to communicate ideas as well as to represent objects) evolved into first. written and then printed texts of phonetic letters. They also suggested that a shift from print media to image-oriented media was not necessarily imminent; but a communication technology, in which print is handled electronically, as screen images, might become an

extension of print media. This technology, which would require a new literacy, would not replace print, but would accommodate and enrich it. Moeller (1994) indeed observed that newspapers and other print media were trying to figure out how they would fit in the new interactive electronic world, and that newspapers had already begun to develop electronic delivery of news and information. His expectation was that with the advent of the age of convergence of computers, fibre optics, and cable, the personal computer would be a major delivery vehicle for multimedia content and a more friendly environment for the newspaper industry's efforts to develop interactive products.

Over the past two decades, the print media in the industrialised countries have actually undergone a major transformation through the harnessing of electronic information processing technologies, and national, social and economic priorities; and because of the increasing sophistication of computer users, the decreasing costs of interactive computer systems, and the global adoption of integrated services digital networks (ISDN). It was suggested that ISDN coupled with computers would not only change established media but also create new ones (Hsia, 1988). Indeed, for the media to perform its primary role of informing, entertaining, and educating the general populace, not only should they keep abreast of developments in ICTs, but they should also be users and drivers of these developments. The application of ICTs to print media has on one hand led to the emergence of new partnerships between media houses and IT businesses; and on the other, created common interest between private firms and government, especially in the dynamics of a deregulated information and communication economy.

The Nigerian Print Media

The history of the print media in Nigeria dates back to less than 150 years. The first Nigerian newspaper, *Irohin Yoruba*, was established in Abeokuta in December 1859 (Omu, 1966). It was published in Yoruba and English. Since that time not less than 100 newspapers and magazines have been published in Nigeria. The question here is, How far have the Nigerian print media been transformed by ICTs to function in the evolving information society? In this work, this question has been addressed by studying the use of, and disposition to ICTs in fifty print media houses in Nigeria. The print media houses include all the newspapers and magazines that are judged to be regular and of good standing in terms of geographical reach and circulation. Besides the media of strictly local outlook, irregular ones and foreign media were excluded. Newspapers make up the bulk of the selected media of which about a quarter is government-owned. The rest belong to individual Nigerians. The most widely read media belong to this category.

Methodology

Data collection was carried out in 2000 with a self-administered questionnaire. The questionnaire was designed to elicit from each media house information on the ICTs being used, the goal of its ICT policy (if it has any) and the factors that influenced the articulation of the policy, the perceived impact of ICTs on the media industry, and future prospects of the print media industry in the unfolding information society. The questionnaire was distributed to three staff in each organisation, namely a top management staff (that is, one of the editors), the head of the production department, and the head of the computer (or information technology or management information system) unit. Altogether 150, copies of the questionnaire were distributed out of which 105 completed copies (70%) were recovered.

Profile of Media Houses

Daily newspapers constitute about 45% of the media, while weekly newspapers and weekly magazines constitute 22% and 28% respectively. Monthly magazines make up the remaining 5%. The rapid growth of the print media in Nigeria is a recent event. A relatively high proportion of the media houses were founded in the last fifteen years. In fact, roughly 34% of them began circulation between 1996 and 2000. The period between 1920 and 1960 recorded just a trickle, first of daily newspapers and then of weekly newspapers. Thereafter, the daily newspapers grew in number at a fairly constant rate. Most of the monthly magazines were established between 1981 and 1990 while most of the weekly newspapers and weekly magazines came into circulation between 1991 and 2000. Nearly half of the media have a staff strength of 100 or less. Approximately three quarters of the weekly newspapers and magazines and all the monthly magazines fall into this category. The circulation figures of the media are still fairly small for a population of about 120 million people. Not more than 62% of them publish up to 30,000 copies. Only a few daily newspapers publish up to 100,000 copies. None of the weekly newspapers has a circulation figure of more than 20,000. The highest circulation figures indicated for the magazines fall between 50,000 and 60,000. There is no clear pattern of relationship between year of establishment and volume of circulation.

Application of ICTS

The first thing to note is that all but two out of the 105 respondents reported using various levels of ICTs. The responses on the availability of specific facilities are as follows: computers (97.1%), scanners (92.4%), fax machine (84.8%), colour printers (81.9%),

digital telephone (81.9%), e-mail (58.1%), the Internet (50.5%), digital camera (45.7%), mobile telephone (40.0%), colour photocopiers (30.4%). It is almost inconceivable that a print media can do without the computer, scanner, fax, and colour printer at this time. The low level of availability of mobile telephone, digital camera and colour photocopiers may be attributed to the relative newness of the technologies to the Nigerian IT market and the print industry. Other items of equipment like zip disk and CD-writers were reported by 14.3% of the respondents. As at the moment of data collection, 14.3% of the respondents indicated that they were just about to be on the Internet, of course, with their own websites.

ICT policy

The ICT policy is of fundamental importance to an organisation's progress in capacity building for an ICT-driven market. In the analysis of the respondents, 85.2% of the respondents affirmed that their organisations had articulated a policy for the application and integration of ICTs into their operations. On the focus of their ICT policy, 44.8% indicated that their policy envisaged full application and had a plan for catching up with the state of the art in the technology. Phased application was the preferred policy thrust reported by 30.5% of the respondents. Lastly, 9.9% reported that their policy envisaged partial application. They would adopt any technology that was found to be indispensable. The data analysis shows at what stages the media houses were according to Richard Nolan's (1979) six stages of information system evolution. Roughly 38% of the respondents reported that their organisations were in the initiation stage of ICT application, while 36.2 % reported being at the integration stage.

Table 1: Factors that Influenced the ICT Policy

Factors	Proportion of Respondents	Rank
Organisational goal	75.2	1
Up-to-date	73.3	2
Enhance production	68.6	3
Competition	64.8	4
Improve organisational image	61.91	5
Enhance profitability	59.0	6
Innovativeness	50.5	7

The table shows the factors that influenced the timing, articulation and focus of the policy as reported by the respondents whose media had an ICT policy. The most important factor was the desire to meet the organisational goal (75.2%). The other expectations were also quite important. With stiff competition coming from organisations with state-of-the-art technologies, there was bound to be great pressure on most media to reposition themselves for improved product quality, competitive advantage, improved organisational image and greater profitability. It is also obvious that the goal of the company was a major influence in the timing and articulation of its ICT policy.

Human Resources

A significant proportion of the respondents (79.0%) reported that their organisations had a functional ICT or computerised database or management information systems unit/department. A high level of organisational support for the application of ICTs was demonstrated by the fact that these units or departments were headed by personnel of high rank. The respondents reported that a variety of titles are used to designate heads of ICT units/departments. The title "systems manager" was reported by 37.1% respondents. The staff strength of the unit in their organisations ranged between one and ten. The next commonly used title was "systems analyst" as reported by 29.5% of the respondents, followed by the designation "data processing manager" reported by 19.0%. The distribution of staff in the ICT unit, certainly a function of size of the organisation, seems quite generous and could be seen as another evidence of organisational support for a major leap into the information society.

Impact of ICTs

Surely, the media houses that were pressing on with investment in ICTs had been vindicated in their expectations. A little over 78% of the respondents reported that the ICTs applied in their organisations were appropriate and were meeting their needs. Nevertheless, 86.7% believed that they could do with further upgrading. This is understandable in view of the fact that not all the media organisations were applying all the ICTs commercially available but only what best served their immediate needs and they could afford. With even the current level of application, a number of benefits have been realised. The benefits listed by some of the respondents are:

- Enhanced performance: speed, skills, and quality
- Improvement in communication
- Improvement in picture resolution and general graphics

- Increase in profits through reduced cost of production
- Better page layout
- Good image and high rating
- Realisation of corporate goal.

As would be expected, there were some problems or constraints that bothered a few (not more than 10%) of the respondents. They included high cost of ICT maintenance (including constant upgrade of both hardware and software), undue competition in the industry, and high turnover of ICT staff.

In general, the media organisations were quite optimistic about the future of ICT application in the industry. They had a clear idea of what they wanted and the areas of emphasis in future investment. A large proportion of the respondents believed ICT had the greatest impact in the industry in the areas of picture quality (83.8%), layout design (77.1%), and currency of news (72.4%), editorial content (63.8%), advert capture (57.1%), readership pull (56.2%) and editing (53.3%).

Future Plans

The media organisations were quite conscious of developments in the information society and the changing role of the print media in the emerging information economy. They were, in fact, prepared to meet these challenges.

When the respondents were asked to indicate areas of participation for the print media in the emerging economy, the highest number of respondents (77.1%) indicated their interest to go into electronic publishing. As many as 48.6% were interested in providing online access to their products; 44.8% would like to incorporate multimedia products into their services; 44.8% would consider more advanced form of advertising; while 43.8% expected their organisation to venture into the domain of electronic commerce. The high response rate on electronic publishing should be expected, as the electronic newspaper via the Internet is becoming a norm. The emergence of the dot com companies is a catalyst that is transforming the nature of advertising and business.

The respondents were further asked to indicate the global trends that will have a great impact on the industry. The Internet was identified as the development that would have the greatest impact on the Nigerian media in this millennium. Obviously, the influence of

the Internet on the media will continue to grow as an avenue for news sourcing and dissemination. The next development that would have tremendous impact on the Nigerian media is the growth of computer industry and usage in the country. The other developments whose importance was recognised are advances in communications, round-the-clock broadcasting, electronic networking, and electronic commerce.

Towards an Enabling Environment

From all indications, the Nigerian print media have been caught up in the fast waves of the information society; but the results of this study do not in any way indicate that they have developed the capacity to utilise fully the innovations and possibilities in ICT. However, the ICT pull leaves them no option but to get started on a process of advancement to higher and higher levels of participation in the information society. How long that process will be may be difficult to predict; but if the current slogan of "leap-frogging" can exert a sense of commitment, then the process could be shorter than would be imagined. The sense of urgency is there quite all right, and the number of media organisations that have taken or are taking action to get "wired" is increasing.

To reach for an increasingly higher level of participation in the information society is not even for the esoteric reason of being current. It is an imperative for meeting organisational goals, a means of gaining competitive advantage, and a matter of survival. Indeed, the struggle for survival is becoming really demanding. The Nigerian print media are fully aware and, most probably, apprehensive of the changing role of the print media in the emerging information economy, as well as the possible impact of the global trends in ICT and the impact of the information society on the print media industry. The organisational support by most of the media houses as demonstrated by the articulation of ICT policy and the establishment of a department or unit to launch them into the cyberspace is quite encouraging. Another factor that will facilitate the transformation of the Nigerian print media is encouragement from realised expectations. Almost all the media houses that have adopted some ICTs are satisfied with their choice. Such satisfaction is actually contributing to a demand for more ICTs. The areas that are going to engage more attention are electronic publishing, online access, multimedia application, advertising, and electronic commerce.

With the growing necessity to be a big player in the information society, the favourable disposition of the Nigerian print media to move with the information and communication technology, as well as the burgeoning success in establishing a presence on the information superhighway, all that is needed to increase and sustain the momentum of the

transformation process of the print media in Nigeria is a general improvement in the economy, large-scale development of the telecommunications and energy sectors, and the level of liberalisation that is required to create an investment-friendly climate. In fact, the African telecommunications sector is favourably disposed towards a more liberal policy to attract foreign investment and to improve its infrastructure and services (NICI in Africa, 2000). The present national process of deregulation in Nigeria is a step in the right direction. A national policy thrust specifically for the development of ICTs is certainly necessary. It is hoped that Nigeria will translate her national policy on information technology into concrete political agendas and economic programmes.

The political will to develop the basic information and communication technology infrastructure as a national priority is likely to be prompted by the role of Nigeria in African politics. Nigeria is a party to the African Information Society Initiative (AISI) and the National Information and Communication Infrastructure (NICI). The definition of NICI plans and strategies has become high on the agenda of developing countries. They are confronted with the challenge to be responsive and flexible to the convergence of telecommunication, audio-visual and computing technologies. NICI plans and strategies need to reflect overall development priorities, redefine sectoral policies and support the introduction of new regulatory framework so as to improve the efficiency of resource utilisation and to mobilise resources for building national information and communication infrastructure (NICI in Africa, 1999). In April 1997 Nigeria hosted a sub-regional workshop on the Internet for West African Anglophone countries. The workshop recommended among other things the adoption of the principles of AISI as an action framework to build Africa's information and communication infrastructure; that governments should develop national information and communication policies and plans for adopting ICTs and follow up their implementation; and that NICI should be a national priority for inclusion in the countries' national development plans and programmes (Economic Commission for Africa, 1997). As part of the AISI action plan, an African ministerial meeting again urged member countries to take on the development of ICTs as an integral component of the continent's national and regional development agenda. It also called upon international partners to treat ICTs as a special priority for Africa's development; and to consider launching a special initiative to support the harnessing of ICTs for development (African Information Society Initiative, 2001).

Conclusion

Information society is understood to be a complex multidimensional phenomenon that has technological, economic, occupational, spatial and cultural conceptual expressions. In this study emphasis was placed more on the technological dimension, which encompasses ICTs and their role in mediating the interplay of all the other dimensions. For the print media in Nigeria, ICTs have become a crucial means of meeting organisational goals, a necessity for gaining competitive advantage, and a matter of survival. The level of application of ICTs by the media and their contribution to electronic information management is certainly far from impressive. However, they are likely to be spurred to a higher level by the modest success of the moment. They are also fully aware of the changing role of the print media in the emerging information economy, as well as the possible impact of the global trends in ICT and the evolution of the information society on the print media industry. The areas that will engage more attention are electronic publishing, online access, multimedia applications, advertising, and electronic commerce. It is hoped that the industry will benefit optimally from the current national and regional initiatives to develop information infrastructure in order to launch into the mainstream of the information society.

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Book Review

Research in Information Sciences: An African Perspective. Edited by L. O. Aina. Ibadan: Stirling–Horden Publishers (Nig) Ltd, 2002, 220 p. (ISBN 978-032-053-9). Price £15

This book on research methodology is by lecturers from the Department of Library and Information Studies at the University of Botswana. The contributors have different backgrounds in computer science, public administration, management, statistics, history, archives and chemistry.

Unlike many books on librarianship and the information profession in Africa, which are either descriptive or historical, this work has delved into an area that is largely untouched in terms of the African perspective. It is thus an innovation in library and information literature in Africa.

The book consists of nine chapters. The first chapter introduces the reader to research, which includes the types, characteristics and process of research. The second chapter deals with research methodology. In this chapter, the various research methods used in social sciences, especially in library and information sciences, are discussed. These include historical, experimental, social survey, case study, bibliometrics and content analysis. Chapter Three concentrates on data collection instruments in information sciences. Some of the areas covered include questionnaire, interview, observation, documentary sources, written and oral texts. The advantages and disadvantages of using any of these sources are also discussed. In Chapter Four, library and information resources are examined. These are materials consulted for aid or for information on a topic, theme or event. They include catalogues, dictionaries, encyclopedias, abstracts, indexes and Internet searches. Chapter Five aims at introducing researchers to effective procedures for utilising archival sources. It explains the nature of archival materials and the procedures that are followed in archives search rooms. The use of statistics in library and information research is treated in Chapter Six. Various categories of statistical methods are discussed. Also discussed in this chapter is correlation and regression analysis. The application of these to library and information research is emphasised. Computer applications in information science research is the theme of Chapter Seven. The chapter looks at the ways that computer and communications technologies are used to achieve the functions of research. Areas covered include Online Public Access

Catalogues; the Internet; electronic mail; and listservs among others. Chapter Eight highlights general issues of research. It attempts to bring together all the issues that are critical to completing a good research report. These include editing and dissemination of research findings; ethics in research; and the problems of research in Africa. Chapter Nine deals with the important issue of the research proposal in information studies. It discusses the reasons for writing proposals; importance of a research proposal; and elements to be included in the proposal, among others. Practical examples are given in some instances.

By all accounts, this is a useful book for library and information students and professionals in Africa. There is a deliberate attempt to provide examples from the African background in most of the chapters. Every chapter is well supported by references and review questions. This book has clearly shown how teamwork can overcome problems. The combination of experts in library/information science/archives and records management has produced a cross-fertilisation of ideas towards a common goal. It is hoped that more professionals in Africa will team up in the near future to write textbooks in other areas of information studies such as cataloguing; classification; management; preservation; and information technology.

A cursory look at the list of references for courses offered in library and information schools in Africa would reveal that in most cases, all the books are Western oriented. Hence the timeliness of this book.

It is a very readable and genuinely useful book, which, if suitably priced, and generally available, will serve as a good textbook for all library and information schools in Africa.

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Library Funding: Adequate Financial Support for African University Libraries. Edited by John Willemse. Oxford and Kampala: International Network for the Availability of Scientific Publications (INASP) and The Standing Conference of African National and University Libraries in Eastern, Central and Southern Africa (SCANUL-ECS), 2002, viii + 64 pp.

This report was commissioned in the year 2000 by SCANUL-ECS to address the need to develop guidelines to assist university libraries in Africa, in general, and those in East, Central and Southern Africa in particular, to determine appropriate levels and sources of financial support. The background to all this was and still remains the very deplorable state of these libraries arising from decades of neglect (stretching back at least to the late 1970s) in the face of dwindling financial and other material commitments to library development on the African continent.

The report is crafted in accessible but authoritative prose by a leading light among the rare breed of librarians with distinguished record of practice combined with academic excellence. It is rich in insights and data and stimulating and challenging in its proposals on pathways to a better future for Africa's university libraries. No better justification can exist for the enterprise that led to its being written, and no other advertisement is required on the usefulness of the final product, than is offered on the pages of the report itself.

Against the background of a succinct introduction (Chapter 1) and a detailed statement of the study's methodology (Chapter 2), the next three chapters provide a comprehensive account of the travails of the university library in Africa in the context of the roles it is expected to play, the global crisis in funding university libraries, and the African dimension to this crisis. In this manner, we are reminded not only that Africa is not alone in this predicament but, nonetheless, that there are dimensions to the predicament that are largely specific to Africa. Such specific dimensions include the very rapid expansion and transformation of universities in the continent in the 1980s (p.13); government policies and control that often stultify, discourage and even occasionally forbid university-level initiatives (p.15); and imbalances in the global production and flow of knowledge (p.16) and resources (Chapter 6), among others.

It is important, the report goes on to add, that this issue of funding be critically addressed not only for the sake of students and staff of Africa's universities and their host communities and countries but also for the sake of the global enterprise of intellectual production and reproduction. As Professor Willemse goes on to note, "the poor financial state of African universities is not only affecting the quality of teaching on the continent, it is also indirectly affecting researchers elsewhere in the world" (p.17).

The report does not, however, get stuck in the depressing morass of the moment. More than half of its contents is devoted to sketching the way forward in terms of such things as better funding even in the context of increasing scarcity of resources to university, community, country and continent; setting appropriate standards and norms (Chapter 7); library budget in relation to university budget (Chapter 8); share of student tuition fees allocated to the library (Chapter 9); and income generation by the library (Chapter 10).

This report that should be acquired and read by librarians, university administrators, relevant policy makers in and outside government and the wider public in Africa and beyond. It is written in the best tradition of comparative scholarship. Although its main geographical focus is East, Central and Southern Africa, it draws data and insights from the rest of Africa, Europe and North America. Its findings and recommendations (Chapter 11) must also resonate among librarians outside of its primary area of concern as they have done with me.

This is one excellent case of paths that could be trodden in terms of south-north intellectual and professional collaboration at the levels of networks, institutions, and individuals. I can only hope that similar studies will be undertaken for the rest of Africa to build upon and add to existing knowledge of financial support not only for university libraries but for all libraries - national, special, regional, local, and electronic. For, if there is anything over which there should be general agreement, it is the hunger and necessity for, and the paucity of, information on Africa for Africa in Africa.

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Professional News and Events

Botswana Library School Produces its First PhD

The Department of Library and Information Studies, University of Botswana produced its first PhD in library and information studies in February 2003. The graduand, Mrs. Damaris Odero, is a Kenyan. She is a lecturer in the Faculty of Information Sciences, Moi University, Kenya. The title of her thesis is "Determinants of Internet Adoption and Assimilation by University Library Personnel in Kenya." Many more are in the pipeline. The Department of Library and Information Studies is the second department in the University to produce a PhD degree. The Department currently trains library and information personnel at all levels in library and information studies (certificate, diploma, bachelor, masters and doctoral). It also has certificate and diploma programmes in archives and records management. The department recently started a bachelor degree programme in information system.

A Librarian Becomes Dean of Education

Professor David Folorunso Elaturoti, Director of Abadina Media Resource Centre, University of Ibadan was recently elected the Dean of Education, University of Ibadan, Nigeria. By his election he becomes the second librarian to be elected Dean of Education at the University of Ibadan. The pioneering Professor of library and information studies, Prof (Mrs.) Ogunsheye served as the Dean of Education from 1977 to 1979. Professor Elaturoti attended the University of Ife (now Obafemi Awolowo University) and the University of Ibadan both in Nigeria, and The University of Western Michigan, Kalamazoo, Michigan, USA. He holds a BA in Education, Postgraduate Diploma in Library and Information Studies, MLIS and PhD in Library Studies.

West Africa Library Association of Library and Information Science Journal Editors (WALISJE) formed in Ibadan

At the end of a training course on "the sustenance of library and Information science (LIS) journals in West Africa," held at the University of Ibadan, Nigeria, from 30th June to 5th July 2003, an association for LIS journal editors in West Africa was formed. The training course, which was attended by 12 editors from Ghana and Nigeria, elected a four-man committee to work out the modalities of formalisng the association. The Editor of *Nigerian Libraries*, Dr. S. O. Olanlokun was elected the interim President of the

Association. Others elected are Mr. I. K. Antwi, the Editor of *Ghana Library Journal* as the Vice President, Dr. Charles Omekwu, Editor of *Lagos Librarian* (Secretary) and Dr. Emmanuel Dahwa, Editor of *Borno Journal of Library Studies* (Assistant Secretary). A discussion forum (WALISJE@yahoogroups.com) for the association was launched. Also, the association has a website address (http://groups.yahoo.com/group/walisje). It is expected that the association will be formally launched in December 2003.

Forthcoming Conferences

February 25-27 2004. New Delhi, India. International Conference on Digital Libraries.

Theme: Knowledge Creation, Preservation, Access, and Management.

Sub-themes:

Digital libraries: conceptual and theoretical aspects
Planning, development, architecture, and management
Archiving cultural heritage and history through digitisation
Content organisation and knowledge management: discovery, organisation, retrieval, and models
System scalability and interoperability
Mediation and user interaction
Metadata issues
Digital library policy and strategic planning.

For more information please contact: Debal C Kar, Conference Coordinator
ICDL 2004 Secretariat TERI
Darbari Seth Block, Habitat Place, Lodhi Road, New Delhi - 110 003 / India
Telephone +91 11 2465 1629, +91 11 2468 2100, or +91 11 2468 211
Fax +91 11 2468 2133
E-mail ICDL2004@teri.res.in
Web www.teriin.org/events/icdl

August 20 -27, 2004, Buenos Aires, Argentina. World Library and Information Congress: 70th IFLA General Conference and Congress.

Theme: Libraries: Tools for Education and Development

For more information please contact: Buenos Aires 2004, Argentine Organising Committee, Associacion de Bibliotecarios, Graduados de la Republica Argentina.
Fax +54 (11) 4371-5269 or 4373-0571
E-mail Ifla2004@abgra.org.ar

August 23 -29, 2004 Vienna Austria. 15th International Council on Archives (ICA).

Theme: Archives, Memory and Knowledge.

For more information please contact: Evelyn Wareham, Programme Officer, International Council on Archives, 60 Rue des Francs Bourgeois, F. 75003 Paris, France.
Fax +33 (0) 1 42 72 20 65
E-mail wareham@ica.org

Report of a Training Course

Report of the Training Course on Sustenance of Library and Information Science (LIS) Journals in West Africa, held at the University of Ibadan, Nigeria, 30th June to 5th July 2003

Because many LIS journals published in West Africa are not sustainable for one reason or the other, the African Journal of Library, Archives and Information Science (AJLAIS) and the International Network for the Availability of Scientific Publications (INASP), UK organised a training course for LIS journal editors in West Africa. Some of the problems afflicting LIS journals in Africa include: editorial and organisational problems, high mortality rate, and shortage of quality manuscripts.

The main objective of the training course was to empower LIS journal editors in West Africa with skills that will enable them manage a journal on a sustainable basis. Thus, the editors were equipped with editorial, technical and marketing skills. The specific objectives were:

- to equip editors with the skills necessary for attracting quality manuscripts.
- to teach the editors various methods of promoting and marketing a journal.

- to equip the editors with the knowledge of the methods of widening the financial base of a journal.
- to teach the editors how to ensure international visibility and recognition for authors who publish in their journals.
- to equip the editors with techniques of managing a journal in a digital environment.

The content of the course covered the following:

- A presentation by each participant on genesis, problems, challenges and the way forward of his/her journal
- Problems, remedies and evaluative indicators in journal publishing in Africa
- Drafting of mission and vision statement
- Editorial board, editorial policy and peer- review process
- Disciplinary and professional support of a journal
- Journal publishing: design and production management
- Internet resources practical
- Online publishing
- Preparing a camera copy electronically
- Internet and journal management
- Promotion and distribution of a journal
- Subscription management
- Widening the financial base of a journal
- Management of a LIS journal- the experience of AJLAIS

The course content was covered by experts in the different areas of journal management. Twelve LIS journal editors from Ghana and Nigeria attended the training course.

A fifteen-point communiqué was issued at the end of the training course:

1. Library associations in West Africa should endeavour to have web sites.
2. Editors of LIS journals in West Africa should help in marketing and promoting each other's journal.
3. Librarians in West Africa should encourage the acquisition of publications that are of local relevance to the sub-region.
4. There is a need to have local subscription agents in order to facilitate easy procurement of journals across the sub-region for libraries.

5. An association of West African LIS journal editors should be formed immediately and its activities should also be given adequate publicity through various traditional, electronic and print media.
6. To promote the sustenance of journals supported by library associations, there is a need for such journals to have separate bank accounts.
7. National and regional library associations should give the much needed support to the association of LIS journal editors when it is formed.
8. LIS education institutions in the region should stimulate the writing and publication of quality manuscripts by graduate students and their faculties.
9. LIS journals should articulate and implement quality editorial policies.
10. National libraries in the sub-region that are responsible for the allocation of ISSN should attend promptly to requests from new journals.
11. Library associations in West Africa should provide exhibition spaces to LIS journals during their meetings, conferences, etc.
12. To encourage diversity of the content of West African LIS journals, editors of such journals should form a network for the exchange of publishable manuscripts.
13. Standard of good practice in LIS journal publishing should be followed so as to improve the content, format and quality of West African LIS journals.
14. Periodic training of editors and other stakeholders in publishing should be undertaken though the assistance of donor agencies in order to sharpen the skills of West African LIS journal editors.
15. West African LIS journals should endeavour to publish at stated regular intervals in order for the journals to be indexed and abstracted in international indexing and abstracting agencies so as to improve their visibility.

For more information contact the Training Course Co-ordinator, P.O. Box 20492, Ibadan, Nigeria.

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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 the 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

NOTES TO CONTRIBUTORS

Contributors are to submit the manuscript by e-mail file attachment using MS word and a hard copy, typed double space on A4 paper. Ample margins should be provided. 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.

References and notes should be indicated in the text by names of authors and date of publication in brackets. The list of references should be listed in an alphabetical order at the end of the text.

References to journal articles should be in the following order: Author(s), date, title, journal's name, volume number, issue number and inclusive of pagination, e.g.:

Mazikana, P.C. (1987) Archives and Oral History: Overwhelming Lack of Resources. *Information Development*, 3 (1) 13-10.

References to books should be in the following order: Author(s), date, title, place of publication, publisher and pagination, e.g.:

Aboyade, B.O. (1989) *The Provision of Information for Rural Development*. Ibadan: Fountain Publications, 104 p.

References to contributors in collected works should be in the following order; authors(s), date, title of contribution, name of the editor, title of the collected works, place of publication, publisher and including, pagination e.g.:

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. Fifteen copies of reprints of each major article will be supplied to the principal author.

Manuscripts and other editorial materials should be directed to the Editor- in- Chief, Professor L.O. Aina, Department of Library and Information Studies, University of Botswana (e-mail:ainalo@mopipi.ub.bw) or any member of the editorial board nearest to you.