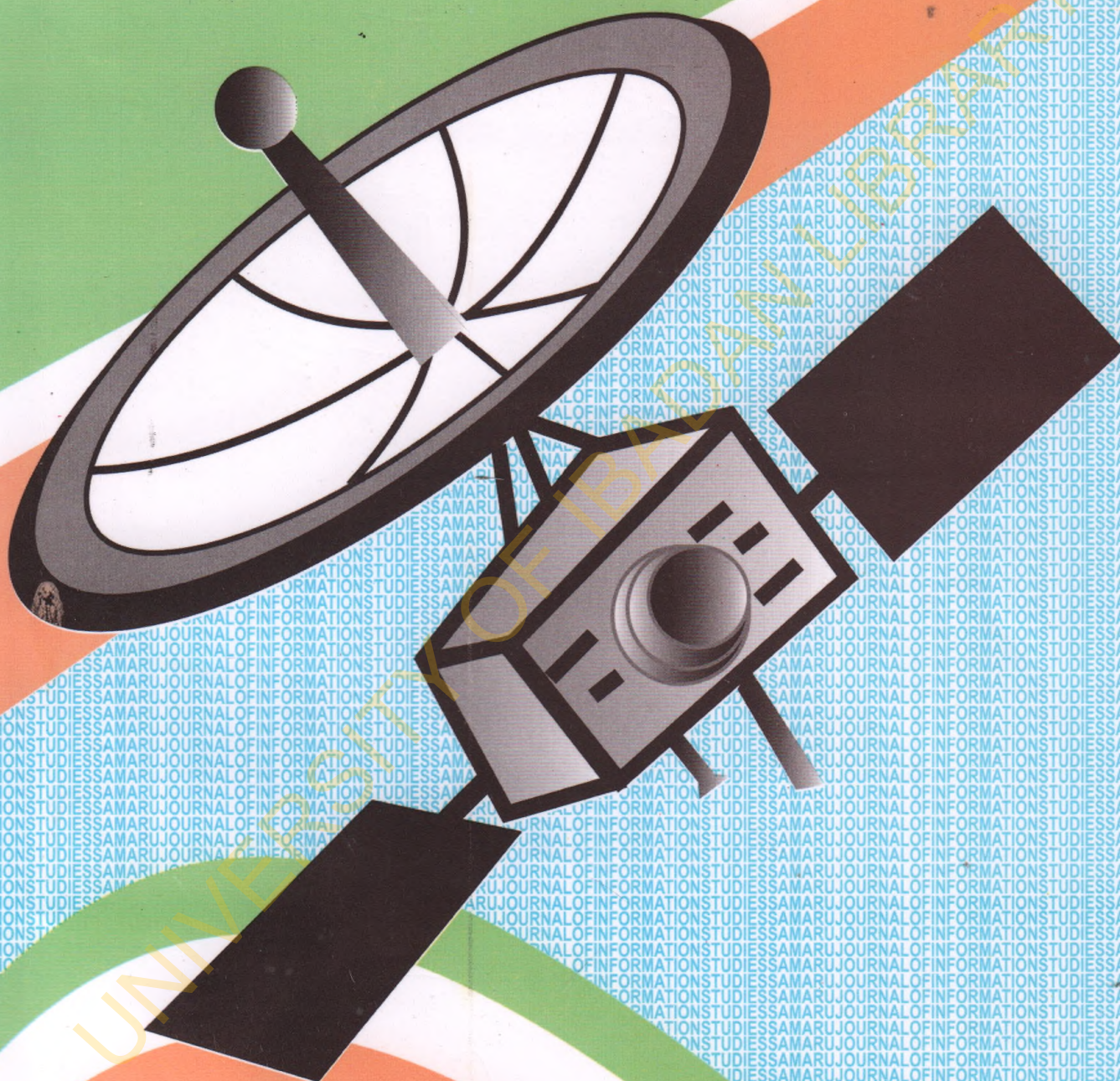


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Preservation management in university libraries in Southern Nigeria

Oluwole Ejiwoye, Rasaki , Ph.D and Abiola , Abioye, Ph.D

Abstract

Information resources in university libraries are susceptible to degradation, deterioration and destruction due to factors such as unfavourable temperature and relative humidity, activities of biological agents, theft and mutilation, mishandling and disasters. Forestalling the situation therefore calls for effective preservation management. University libraries particularly those in tropical zone are faced with acute problem of preservation management. This study, therefore, investigates preservation management of information resources in university libraries in Southern Nigeria. The descriptive research design was adopted for the study. Purposive sampling technique was used to select 24 out of the 33 university libraries in the Southern Nigeria. A self designed questionnaire was used to collect data for the study. Theft and mutilation, unauthorised access to information on computers, mishandling of library materials and deterioration by photocopying were the major threats to information material. Periodic fumigation, binding and repair of information materials and library security were the popular preservation measures available in the university libraries. Challenges facing university libraries in their preservation efforts include lack of electricity to power preservation facilities and equipment, inadequate funding and lack of preservation policy and strategies. The study recommended adequate security measures, adequate funding, provision of uninterrupted power supply and formulation of preservation policy to aid effective preservation management.

Keywords: Preservation management, university libraries, library materials, collection management.

Introduction

University libraries are established to support the teaching, learning, research and community service of their parent institutions. They acquire, process, store and preserve and make information resources available to users. Information resources acquired in university libraries be the in - print, non print, digital or electronics are susceptible to degradation, deterioration, damage and destruction by factors like natural aging, chemical decomposition, poor quality of material for their manufacturing, effect of high temperature and relative humidity pests and disasters, which can make them inaccessible. The value of a library is measured in terms of available information resources and their accessibility in meeting the information needs of the users. It is therefore, important to preserve the information resources so that they can be accessed and use by library users. Forde (2008) posited that preservation activities are essential for collection's long-term availability and should be a concern to everyone. According to Owen (2003) since its invention, the written inscribes have been susceptible to destruction. Conway (2006) corroborated this view when he posited that the dilemma and no doubt the tragedy of media of cultural transmission is that while our capacity to record information has increased exponentially overtime, the length of the media used to store and transmit them has decreased.

Report of stock assessment and condition surveys of library information resources around the world revealed that libraries are confronted with varying degrees of preservation problems which had lead to loss of valuable information resources. Report of the condition survey of African collections at the Kenneth Dike Library, University of Ibadan conducted by Alegbeleye in 1996 revealed that 7.0290 of the books are very acidic, 57.9390 acidic, 34.7890 slightly acidic and 2790 neutral.

The introduction of electronic information resources into library is also accompanied by preservation challenges. According to Fenton (2008) today's landscape, so radically altered by prevalence of electronic information resources, libraries face new challenges and opportunity as they address the mission critical preservation task which include media fragility and increasingly complexity of electronic resources as digital content is prone to loss through accident, byte corruption, format obsolescence , and change in hardware and software environment.

Preservation according to Dedandido (1989) is the activity that attempts to keep what you want and need for as long as you want or need it. Continual access to information resources in university libraries can

only be attained when there is a consciously planned preservation programmes. These include, environmental monitoring and control, effective pest management, reformatting of information resources through digitization, reproduction, microfilming, preservation education and training, disaster planning and digital preservation.

It is unfortunate that preservation, as an important library function has not been accorded priority like other library function like cataloging and classification, acquisition, circulation, serial management. According to Teper (2005) while other library functions are well established, the responsibilities of adequately preserving our collections remain a mandate only partially fulfilled. The neglect of preservation as an important library function results in lack of allocation of resources and facilities such as dedicated section or unit as preservation unit, lack of preservation librarian to coordinate and manage the preservation programme of the library. Apart from these, libraries rarely make provision for preservation of library materials in their annual budget. This study, therefore, investigates preservation management in university libraries in Southern Nigeria.

Literature Review

Library materials are prone and susceptible to deterioration, damage and destruction by natural and man made factors. Studies by Akussah (1994), Alegbeleye (1996, 2007), Schnaffer and Baird (1999), Ngulube (2002), Teper and Atkins (2003), Jordan (2003), Bankole and Abioye (2005) revealed that factors like chemical composition of the materials, poor quality of paper, environmental factors such as relative humidity and temperature, air quality, light, disasters, attitudinal factors and activities of biological agents and poor storage condition constitute a grave threats to library resources.

Chemical composition is one of the factors causing deterioration of library collection because a large number of library collections carry with them seeds of their own destruction. Paper makes up the bulk of library collections and will continue to do so in foreseeable future (Harvey, 1993). The major cause of deterioration of paper is paper acidity caused by oxidation and hydrolysis due to alum-rosin used in modern day paper making. Microfilms also contain in built destructive chemical as they are produced from different types of plastics like nitrate, acetate and

polyester. Studies by Akussah (1994), Alegbeleye (1996, 2007), Bankole and Abioye (2005) revealed that most of the books and microfilms studied are at one stage of deterioration or the other as a result of acidity due to their chemical composition .

Library collections can only survive under a stable, conducive, well ventilated storage environment. Poor storage condition constitutes a great obstacle to the survival of library materials especially in African university libraries. According to Akussah (1994), poor storage conditions greatly accelerate the deterioration of any published material and those produced with inferior materials have no chance of surviving under such conditions. Factors such as high temperature and relative humidity, sunlight, light (ultraviolet), air quality and dust contribute to deterioration of library information resources.

Findings from the studies conducted by Akussah (1994), Alegbeleye (1996, 2007), Teper and Atkins (2003) revealed that most of the libraries studied had poor storage facilities as heating and cooling system are not available or inadequate, ventilation is poor, while many libraries had leaking roofs and plumbing problems.

Library materials are hygroscopic as they are reactive to moisture, relative humidity and temperature whether too high or too low, and these have adverse effects on collections. The expansion and contraction in response to fluctuations cycling in relative humidity causes changes in dimensional and mechanical properties of the materials which accelerates the natural degradation processes (Akussah, 1994; Alegbeleye, 1996; Jordan, 2003). Temperature affects the speed at which natural ageing occurs, thus, the higher the temperature the faster the rate of deterioration. A general rule of thumb state that chemical reactions rate double with each 10°C increase in temperature. In addition to accelerating deterioration, heat also causes dryness and brittleness of paper. Teper and Atkins (2003) in their study discovered that the combination of high ambient temperature and humidity resulted in periodic mould outbreaks. It was also discovered that poor air circulation, accumulated dust, and insect infestations have all left their marks in various parts of the collections.

The damages and destructions caused by biological agents cannot be over-emphasised. According to Parker (1986) a library is in effect, a concentration of

foodstuff for the common pests – insects, rodents, mould – that attack the collections. Insects can reduce printed word to excrement, obliterate page after page with staining and fungal destruction and destroy bindings, covers, and valuable documents. Mould and mildew are large problems in libraries particularly in subtropical and tropical climates (Harvey, 1993). Report of the study by Bankole and Abioye (2005) on deterioration of library materials at the Olabisi Onabanjo University Library, Nigeria revealed that fungi play active roles in the deterioration of paper materials and that bacterial isolated from deteriorating books is as a result of contaminants from dusts.

According to Rolich and Mohchemich (1997) most of the damage are not malicious but are as a result of thoughtless or careless behaviour including careless handling, stocked of book on top of each other or flicked over roughly to expose their inside back cover for date stamping when being issued. Much photocopying is destructive with bindings being forced down hard onto the pattern of photocopier. Saffady (2009), Alegbeleye(1994) posited that improper handling is a common cause of physical damage to information recorded onto magnetic and optical media.

Eden and Matthews (1996) defined disaster as any incident which threatens human safety and/or damages, or threats to damage a library's buildings, collections (or items therein) equipment and systems. According to Alegbeleye (1993), Akussah and Fosu (2001) disaster can be natural or manmade. Natural disasters include floods, fire, earthquakes, storms, cyclones and hurricanes. Man induced disasters include war time destruction, bombing, malicious vandalism, arson, power surges and failure. Study of disaster management among academic libraries in Greece by Kotagiolas et al (2011) revealed that the level of awareness and disaster preparedness in Greek academic libraries was low as they lack formal way of recording past disasters and their consequences and there is no formal disaster management plan where experience is transferred from library director to its successor. Study by Akussah and Fosu (2001) among libraries in Ghana revealed that most of the libraries surveyed have had one type of disaster or the other. They advocated that disaster management should form an essential part of the management functions of libraries.

Crime and security problems are the major challenges confronting libraries as their collections are prone to destruction and damage through these anti social behaviours. Literature is replete on theft and mutilation of library materials. Studies by Akinfolarin (1992), Ewing (1994), Onatola (1998), Senyah (2004), Omotayo and Ajayi(2005/2006), Adewale (2007) and Ajala and Adekanye (2007), Abioye and Rasaki (2013) revealed that mutilation and theft of library materials is rampant among libraries studied. Expressing their disappointment about the attitude of librarians to library security, Chaney and MacDougall (1992) stated that "surprisingly perhaps, crime as a management issue in libraries and information services has on evidence of scant literature available, received relatively little attention by the professional, and what has been written is anecdotal and noticeably lacking in management-oriented approach. Vandalism, mutilation, defacement, theft, verbal and physical abuse, harassment, arson and other criminal activities are problems regularly encountered by staff working in libraries and information services today.

Nowadays, preservation management of digital resources posed a great challenge for libraries and other heritage institutions. Drijhout (2001) posited that digital documents are different from traditional paper documents in the way they are generated, captured, transmitted, stored, maintained, accessed and managed. Granger (2000), Alegbeleye (2007), posited that digital media are confronted with the problem of media fragility, obsolescence, data integrity and authenticity. According to Granger, the media on which digital materials are stored are inherently unstable and without suitable conditions and management can deteriorate very quickly though they may not appear to be damaged externally. Secondly, there is problem of technological obsolescence, with implication that the speed of change in technological development means that the time frame during which digital object become obsolete is within in a few years (perhaps only 2 – 5 years) as opposed to decades or even centuries for traditional materials. Thirdly, there is issue of the integrity and authenticity of the information as originally recorded in an e-environment. Alegbeleye (2007) identified three changes that may affect the integrity of digital documents to include: accidental change, intentional change that is well meant and intentional change that is not well meant (fraud).

It is unfortunate that while preservation management for traditional media is well developed the same cannot be said of digital media. Muir (2004) confirmed this assertion when she acknowledged that preservation management for traditional media is fairly well developed, with management tools and techniques, standards, guidelines and benchmarks to help in the policy development and implementation of preservation programmes.

In order to ascertain the level of deterioration of library information resources, library must periodically carry out condition survey on their materials so as to appropriately respond to it. In traditional preservation management, an initial step in developing preservation policies is to assess the condition of collections and the risks to which they may be exposed. Condition surveys according to Harvey (1993) are the assessment of the physical condition and state of repair of the collections, and the nature and magnitude of the problem therein. The data they provide are important management information, providing facts and figures essential for good planning and administration. Once the extent

and nature of deterioration in the collection is ascertained, preservation goals and priorities can be established.

METHODOLOGY

The population of the study comprised 624 library personnel (made up of 387 academic librarians and 237 library officers) in 24 selected out of 33 university public university libraries in Southern Nigeria. The university libraries selected were those established not later than the year 2000 and having information resources preservation management as one of their key activities. Data were collected making use of a questionnaire and oral interviews. The questionnaire was administered by the researchers and two trained research assistants. The oral interviews were conducted by the researchers focusing on preservation management practices like threats to information materials, preservation measures, facilities and challenges to preservation in their libraries. Of the total number of 624 copies of the questionnaire administered, three hundred and eighty five (385) questionnaires were returned and found valid for analysis (table 1)

Table 1: Response rate to the questionnaire by Respondents across University libraries in the Southern Nigeria (385)

S/N	University Library	No. administered	No. returned	Percentage
1	Kenneth Dike Library,University of Ibadan, Ibadan.	40	22	55
2	John Harris Library, University of Benin, Benin.	47	29	61.7
3	Donald Ekong Library, University of Port Harcourt , Port Harcourt.	30	20	66.7
4	University of Calabar Library, Calabar	28	16	57
5	Olabisi Onabanjo University Library,Ago Iwoye	24	15	62.2
6	Fatiu Akesode Library, Lagos State University, Ojo.	21	15	71.4
7	University of Lagos Library, Lagos.	30	23	76.7
8	Federal University of Technology, Akure Library	21	20	95
9	Nyon Essien Library, University of Uyo , Uyo	30	22	73
10	Ladoke Akintola University of Technology Library, Ogbomosho	16	8	50
11	Ekiti State University Library, Ado-Ekiti	14	13	92.9
12	Ambrose Alli University Library, Ekpoma	20	20	9
13	Delta State University,University Library, Abraka	33	29	87.9
14	Rivers State University of Science and Tech., Port Harcourt	16	11	68.8
15	Nimbe Adedipe Library,University of Agriculture, Abeokuta	32	20	62.2
16	Nnamdi Azikiwe Library,University of Nigeria, Nsukka	50	26	52
17	Enugu State University of Science & Tech..Library Enugu	18	16	88.9
18	University Library Abia State University, Uturu	20	9	45
19	Michael Opara University of Agriculture Library, Umudike	14	8	57
20	Prof. Festus Aghagho Nwako Library, Nnamdi Azikwe University, Awka	19	9	47.4
21	Hezekiah Oluwasanmi Library,Obafemi Awolowo University	31	19	61.3
22	University Library,Federal University of Technology , Owerri	36	15	41.7
23	University Library, Evans Enwerem University , Owerri	23	7	30.4
24	Adekunle Ajasin University Library Akungba Akoko	7	4	57.1
	Total	624	385	61.7

Result of Demographic Information of the respondents

Gender distribution of respondents shows that majority of them 206(53%) were female while 179(46.5%) were male. The highest number of the respondents (149 or 38.7%) were within the age bracket 41-50 years of age. This group was followed by those within 31 – 40 years of age bracket 141 or (36.6%) while the least number of the respondents 6(1.6%) were in the age bracket 21 – 30.

Distribution of the respondents based on years of work experience indicated that majority of the respondents 151(39.2%) fell within the 11-20 years of work experience . This was closely followed by those with 1-10 years experience 138(35.8%). The respondents with 31 and above years of experience constituted the lowest number (24 or 6.2%).

Data on the education qualification of the respondents revealed that the majority of the respondents (253or 65.7%) had masters degree in library studies (MLS). The result also showed that

respondents with Diploma certificate (33or 8.6%) and respondents.
PhD 12(3.1%) constituted the least number of

2: Threats to Library Information Resources

	Threat to information resources in university libraries	True		Not true	
		Freq.	%	Freq.	%
1	Deterioration of library materials by temperature and relative humidity	26	6.8	359	93.2
2	Destruction of library materials by insects such as cockroaches, silverfish, etc.	31	8.1	354	91.9
3	Destruction of library materials by rats, rodents, etc.	32	8.3	353	91.7
4	Degradation of library materials by heavy use	207	53.8	178	46.2
5	Destruction of library materials by flooding	26	6.8	359	93.2
6	Theft and mutilation of library materials	271	70.4	114	29.6
7	Deterioration of collections through mishandling	243	63.1	142	36.9
8	Degradation as a result of photocopying	223	57.9	162	42.1
9	Destruction by microorganism such as mould and mildew	84	21.8	301	78.2
10	Deterioration by ultraviolet radiation	15	3.9	370	96.1
11	Destruction of information material by fire outbreak	211	54.8	174	45.2
12	Loss of data as a result of technology obsolescence (digital resources)	31	8.1	354	91.9
13	Unauthorized access to information on computer (hacking)	243	63.1	142	36.9
14	Destruction of library materials as a result of war and arson	26	6.8	359	93.2
15	Loss of valuable data by the crash of system	147	38.2	238	61.8
16	Deterioration of books as a result of paper acidity	114	29.6	271	70.4

Table 2 shows the threats to the information resources in university libraries in Southern Nigeria. The majority of the respondents claimed that theft and mutilation constituted the highest threat to their information resources. This is closely followed by unauthorized access to information on computer (hacking), deterioration of library materials through mishandling, degradation through heavy use,

degradation through photocopying and destruction through fire outbreak. Deterioration of information resources by ultraviolet radiation, temperature and relative humidity, destruction by flooding and destruction by war and arson (26 or 6.8%) constituted the least threat to library information resources.

Table 3: Preservation strategies in university libraries in Southern Nigeria

	Preservation practices/methods and techniques	Available		Not available	
		Freq.	%	Freq.	%
1	Digitization of print materials	71	18.4	314	86.6
2	Mass deacidification	41	10.6	344	89.4
3	Microfilming	41	10.6	344	89.4
4	Environmental monitoring and control	-	-	385	100.2
5	Periodic fumigation of library	316	82.1	69	17.9
6	Binding and repair of information materials	238	61.8	147	38.2
7	Disaster planning	41	10.6	344	89.4
8	Integrated Pest Management (IPM)	112	29.1	273	70.9
9	Staff training on preservation and conservation	-	-	385	100
10	Restoration programme	82	21.3	303	78.7
11	Library security programme	199	51.7	186	48.3
12	Brittle book preservation	82	21.3	303	78.7
13	Preservation education for library users	160	41.6	225	58.4
14	Digital preservation (migration, emulation, replication, refreshing)	121	31.4	264	68.6
15	Library insurance	-	-	385	100
16	Condition survey/stock assessment	199	51.7	186	48.3
17	Fundraising for preservation programme	41	10.6	344	89.4

Table 3 presents preservation strategies for preservation of information resources in university libraries in Southern Nigeria. Periodic fumigation of library, bindery programme, library security programme and condition survey/stock assessment

programme constituted the highest preservation practices available in the libraries. Mass deacidification, microfilming and fundraising for preservation were the least preservation practices adopted by the libraries.

Table 4 : Preservation facilities available in the university libraries in Southern Nigeria

S/ N	Preservation Facilities	Available		Not available	
		Freq.	%	Freq.	%
1	Heat ventilation and air-conditioning system	126	32.7	259	67.3
2	Dehumidifiers	9	2.3	376	97.7
3	Fans	270	70.1	115	29.9
4	Air conditioners	286	74.3	99	25.7
5	Thermometer	19	4.9	366	95.1
6	Thermohygrographs	4	1.0	381	99.0
7	Sling psychrometers	7	1.8	378	98.2
8	Wet and dry bulb thermometer	20	5.2	365	94.8
9	Recording hygrothermographs	5	1.3	380	98.7
10	Automatic fire detection systems	98	25.5	287	74.5
11	Fire suppression systems	53	13.8	332	86.2
12	Fire extinguishers	250	64.9	135	35.1
13	Water sensing systems	6	1.6	379	98.4
14	Bucket of sand in strategic places	20	5.2	365	94.8
15	Sprinkler systems	6	1.6	379	98.4
16	Fire alarm systems	111	28.8	274	71.2
17	Emergency exits/doors	240	62.3	145	37.7
18	Light meter	10	2.6	375	97.4
19	Blind windows	146	37.9	239	62.1
20	pH meter	8	2.1	377	97.9

Table 4 represents the data on the preservation facilities available in university libraries under study. The most popular preservation facilities available in the libraries were fans, air conditioners, fire extinguishers and emergency exits/doors while thermographs, water sensing systems, Sprinkler systems, pH meter and dehumidifier are the least preservation facilities available in the libraries

Table 5: Challenges facing preservation of information resources in university libraries

		Yes		No	
		Freq.	%	Freq.	%
1	There is no well articulated preservation programme	268	69.6	117	30.4
2	Lack of manpower to execute preservation programme	234	60.8	157	39.2
3	Inadequate knowledge of what constitute threats to library materials by library staff	33	8.6	352	91.4
4	Lack of knowledge of local, national and regional organization(s) that can assist in the preservation programme	201	52.2	179	47.1
5	Lack of conservation laboratory	166	43.1	219	56.9
6	Preservation is not considered as one of the core area of library operation that should be given priority by our library	234	60.8	151	39.2
7	Lack of preservation facilities and equipment	217	55.4	168	43.6
8	Lack of financial resources to execute preservation programmes	302	78.4	83	21.6
9	Uncooperative attitude of library staff	81	21.0	304	79.0
10	Lack of support by university management	254	66.0	131	34.0
11	Lack of trained personnel on conservation and preservation	50	13.0	335	87.0
12	Administrative constraints	271	70.4	114	29.6
13	Lack of preservation policy and strategy	285	74.0	100	26.0
14	Lack of place and institution to train library personnel on preservation practices	285	74.0	100	26.0
15	Lack of technical skills by the staff of the library on preservation	-	-	320	83.1
16	Lack of electricity to use preservation facilities and equipment	335	87.0	50	13.0
17	Unavailability of local supplies and maintenance of preservation equipment and facilities	50	13.0	335	87.0

Table 5 contains data relating to the preservation challenges militating against effective preservation of information resources in the libraries studied. The most popular challenges confronting the majority of the libraries was lack of electricity to run preservation facilities and equipment. This is followed by lack of financial resources to execute preservation programme. Other challenges include: lack of preservation policy and strategy, lack of training facilities for library personnel engaged in the preservation of library information resources, absence of well articulated preservation programme, lack of support by the university management, administrative constraints and the low priority accorded preservation programme in the libraries. Though ranked lowest dearth of trained personnel in conservation and preservation, and absence of local source of supply and maintenance of preservation equipment and facilities were also identified as challenges to preservation in the libraries.

Discussion of findings

The result of the study indicated that university libraries in Southern Nigeria were confronted with various threats to their collections. Prominent among these threats were mutilation and theft of library information materials; deterioration of materials as a result of mishandling; unauthorised access to information on computer; degradation as a result of photocopying; destruction of materials by flooding; and destruction of library materials by heavy use. This corroborates the findings of Akinfolarin (1992), Ewing (1994), Senyah (2004), Adewale (2007), and Akussah and Bentil (2010).

Theft and mutilation of library materials may be attributed to some factors like inability of the users to buy essential materials affected, lack of photocopying service in the library, lack of security, failure to circulate the affected and inadequacy of required information materials in the library. Degradation through mishandling could be attributed to lack of preservation education by users on how to handle library materials. Unauthorized access to information on library computer system may be in form of hacking and eavesdropping on a computer and its related equipment, and making use of a computer for personal benefit. Other computer related abuse or crime include willful damage or destruction of information in computer system, modification of the content of a computer when the person so doing has the requisite interest to cause a modification, and knows it to be unauthorized removal of information stored on a computer system (Davies, 1992).

Degradation through photocopying may be attributed to inability of users to borrow the material because they are not circulating or because the material in question is expensive for user to purchase. Deterioration of library

material by heavy use may result from the material being in high demand but with limited copies. If the materials are limited in supply the pressure may engender deterioration through mishandling and photocopy. Preservation methods and techniques adopted to preserve library information resources from deterioration and degradation with the highest score are; periodic fumigation of library, bindery programme, library security programme and condition survey and stock assessment while the least preservation practice are environmental monitoring and control, library insurance and staff training and on preservation and conservation of library information resources. Libraries that are in tropical region with unstable and severe weather conditions are supposed to put in place, a functioning environmental monitoring and control programme so as to minimise the effect of temperature and relative humidity on library materials.

The findings also revealed that fumigation of library was the popular pest control practice by university libraries studied. This is against the international best practice which recommended Integrated Pest Management (IPM). According to Parker (1991) no one approach to pest prevention and control will suffice. Instead a combination of techniques is usually required to maximize the effectiveness of any pest control programme. Fumigation of library materials with extremely toxic chemicals is rarely necessary. It may be warranted when dealing with bookworm but fumigation is not necessary when dealing with mould and mildew problems (Harvey, 1993)

Non adoption of mass deacidification, microfilming and fundraising as preservation practice as reported in the study may be associated with lack of requisite technical skills by library managers in these areas that are technical skills oriented. It may also be associated with non availability of equipment and institutions for training of library personnel in these areas.

Findings on preservation facilities in the libraries studied revealed that university libraries in Southern Nigeria had air conditioners, fans, fire extinguishers and emergency exits/doors but were deficient in environmental monitoring devices like recording hypothermograph, water sensing systems, dehumidifiers, Thermometer, light meter, fire alarm system and Heat Ventilation and Air conditioning system. Nigeria, being a tropical country with high temperature, relative humidity and sunlight environmental monitoring equipment is very essential for monitoring and regulating the library environment where material are stored. This corroborates Akussah (1994) finding at Balme Library, University of Ghana where he found that no temperature and humidity monitoring devices are not

available which leaves the collection at the mercy of the potential agents of deterioration.

The findings of the study also indicated that the university libraries were confronted with a lot of preservation challenges. Prominent among these challenges are lack of electricity to power preservation facilities and equipment; lack of financial resources to execute preservation programme; absence of institutions in Nigeria for the training of library personnel in conservation and preservation techniques; lack of preservation policy and strategies; administrative constraints and lack of well articulated preservation programme. These findings are in line with those of Munu-Sola (1987), Alegbeleye (1991), Varlarmoff (2004), and Report of Joint IFLA/ICA Committee on preservation and conservation in Africa (2002) that there is no significant investment by governments or the information professionals in preservation programme in Africa.

Absence of institutions to train library personnel on preservation and conservation practice to acquire the necessary skills in preservation and conservation as established in this study is a major problem confronting preservation management in libraries in Africa. This finding confirms the positions of Alegbeleye (1991) and Abioye, (2008) that there is dearth of institutions for training of preservers and conservators. According to Alegbeleye, even if Nigerians are willing to go for training, institutions where this could be done in Africa are few. He affirmed that in Ibadan library school where conservation science is taught on a formal and regular basis the programme is faced with many problems, one of which is the absence of a laboratory for practical work which makes teaching of the course strictly theoretical.

Conclusion and recommendations

University libraries in Southern Nigeria are confronted with preservation problems prominent among them are theft and mutilation of library materials, mishandling, disaster, and others that may make library collections inaccessible to library users. The study also revealed shortage or near absence of preservation facilities especially for environmental monitoring and control which are essential for monitoring and regulating temperature and humidity in tropical country. It was also discovered in the study that university libraries studied were confronted with challenges in their preservation effort such as financial constraints, lack of electricity and lack of institution for training of library personnel on preservation.

Based on the findings of the study the following recommendations are imperative

The management of the university libraries should put in place adequate security measures that can protect library material from theft and mutilation.

The management should formulate and implement a well articulated preservation policy that can give focus and direction to preservation programme in the university libraries in Southern Nigeria.

The management should embark on preservation education and enlightenment programme to create awareness in library users on the proper handling of library materials.

Preservation facilities should be provided in the university libraries for effective preservation of library resources Disaster plan should be put in place to protect library material from disasters

Adequate financial resources should be provided in university libraries for procurement of preservation facilities

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