

Archives Services as Critical Information Sources in Current Trends and Information Service Delivery in Cameroon

Dr. Esther Olembe

Director, National Archives of Cameroon & Head of Department, ESSTIC, Cameroon

ABSTRACT

This research was out to ascertain how the challenges faced in managing archives records as critical information sources in line with current trends is evident in poor information service delivery in the National Archives Buea and the Presbyterian Archives at the Synod Office Buea. The study was guided by two research questions. The population was made up of all the staff of the two Archives services in question, with the target, accessible populations and sample size the same and made up 10 respondents. Data were collected using interview guide, focus group discussion and observation checklist. Content and face validity of instruments were ensured. Data were analysed thematically. The major findings of the study were as follows: there is little or no use of digital means of preservation, preservation equipment are outdated or do not respect standards and the preservation techniques are not appropriate, ineffective and have adverse effect on information service delivery making it unsatisfactory, in response to research question one. Lastly following the second and last request question, on challenges faced by Archives services, it was evident that both services face a number of challenges stemming from biological, environmental as well as physical factors mitigating against their efforts in preserving the rich archival records they have in store for posterity. The above is in addition to insufficient budget and modern equipment with which to digitize their records for proper preservation as current trends demand. Some recommendations were made based on the findings, and include: archivists have to work with the Ministry of Arts and Culture to ensure that a standard preservation policy is written to meet up with the international standard and to cater for all types of records, engage in electronic preservation in order to meet up with the required standards of information service delivery of the 21st century, that the government through the Ministry of Arts and Culture should allocate an annual budget to help attain this objective and the Synod office should endow its Archives with a budget to take the same action, both services should do deacidification and lamination to reduce the rate of deterioration of already deteriorating analogue records and lastly the services are encouraged to exploit other sources of funding through advocacy.

How to cite this paper: Dr. Esther Olembe "Archives Services as Critical Information Sources in Current Trends and Information Service Delivery in Cameroon" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-6 | Issue-5, August 2022, pp.485-497, URL: www.ijtsrd.com/papers/ijtsrd50504.pdf



Copyright © 2022 by author(s) and International Journal of Trend in Scientific Research and Development Journal. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0) (<http://creativecommons.org/licenses/by/4.0>)



KEYWORDS: Archives, Preservation, Information Service Delivery, Preservation Policies, Preservation Techniques

INTRODUCTION

Archival services are becoming critical in current trends in enhancing research. Archives constitute primary sources of information and thus are vital when information sources are considered. They provide researchers with excellent sources of information in scholarly settings. As supported by

Gracy (Ed.) (2017), there is the emergence of a new generation of thinkers that is making the case for the importance of archives as important sources of information that can be used for addressing grand societal challenges such as peace and security, human rights, and adaptation to technological

change in the information society. This line of thought is bringing fresh insights about the nature of the archival endeavour especially in setting up appropriate archives services that are well resourced to support research. Equally the role of archives in preserving evidence of an increasingly complex and diverse society is taking prominence (Gracy (Ed.), 2017). It is therefore primordial to pay attention to how archives services are managed and preserved to take care of information needs in the twenty-first century.

Archives are considered the memory of a people. They stand out as the fundamental corner stone of a people's development and history. The importance of archives can be reflected in several ways and these include its importance for the efficient management of our lives, organizations and government affairs, research but are often undervalued, ignored or misunderstood, Williams (2006). They are a fundamental protection of our democracy, culture, community and personal identity. They are created in the first instance for the conduct of business and to support accountability, but they also meet the requirement of society for transparency and the protection of rights, they underpin citizen's rights in a democratic state and are the raw material of our history and memory constituting primary sources of information. Archives play a very important part in the advancement of man because they contain all the vital information for the daily operation of a business, organization, government, associations, institutions and even persons. According to Millar (2010), archives are created in the course of the functions and activities of organizations and the personal lives of individuals, and are preserved and maintained to support business, accountability and for cultural use. They make available evidence of, and information about the activities of their creators and the environs in which those actions transpired. They serve human memory and play a critical role in preserving awareness of how the present is shaped by the past.

For the importance of archives to be valued as highlighted above there must be proper information Service delivery in archives services. Information service delivery, is a topical issue for all humans including, scholars, researchers and individuals when it comes to formal and informal information needs alike. It is a consensus amongst scholars that information service delivery is critical to ensuring the national wellbeing and stimulation of economic development. Pemberton (1991) and Ngoepe (2008) assert that better service delivery always begins

with better information management including records management practices which constitute the basis of archives records which are records of enduring value. Hence, proper records management supports efficiency and effectiveness in service delivery in a variety of ways. These could include, among others, documentation of policies and procedure that inform service delivery such as; the type of services provided; who are to be responsible for carrying out the work; and what costs involved. Kemoni, Ngulube and Stilwell (2007) have also affirmed that proper records management is significant to governments' realisation and achievement of their goals such as the rule of law, accountability, management of state resources, and protection of entitlements of its citizens as well as enhancing foreign relations. Nandain (2006:4) expands on Kemoni, Ngulube and Stilwell's (2007:5) argument and observes that "effective information and records management provides the foundation for accountability, protection of human rights and increases citizens' awareness to their rights". Thus, it is imperative for government to continue improving their records management programmes in order to achieve greater service delivery, bearing in mind that the customers' socio-political and economical needs are diverse. It is thus as a result of the importance of archives in human life and that of the nation that this study has been deemed necessary. Archives informs the citizens, serve as a tool for democracy, patrimony, culture, transparency, accountability, public administration and a basis for decision making for individuals, organizations and the nation.

Statement of the Problem

Generally, when opinions of person in the public are sampled on days like the "International day of Archives", persons reveal that they see archives as some old dusty unused or out-dated papers piled on the corridors and basements of government departments and organisations with no right to be managed properly. This view in Cameroon reflect that generally Archives are not equipped with the necessary preservation policies and conservation tools, infrastructure, facilities, equipment and staff to effectively and efficiently manage the archives and consequently poor information service delivery that leaves the importance of archives as information sources latent. Consequently, researchers and users hold that they do not have access to accurate, reliable and authentic information from archives in writing History text books, theses, and other scientific works leading to misinterpretation by and misinformation of citizens, which is dangerous. This is the reason that

motivated this researcher to come up with this paper showing archives services as critical information sources in current trends in information service delivery in Cameroon, hoping that the results of the study will provide a premise on which recommendations can be made for improvement.

Research Question and Scope

This research was out to ascertain how the challenges faced in managing archives records as critical information sources in line with current trends is evident in poor information service delivery? The research questions included: How do the challenges in managing archival records using current techniques by archives services as critical sources of information impact on information service delivery? and How do the challenges face by the Archives services impact on information service delivery? Geographically, this research was carried out in the National Archives Annex Buea. And the Presbyterian Archives in the

Synod Office Buea. Theoretically the study was informed Theodore Schellenberg's (1956) records life cycle theory, Frank Upward's (1990) theory of record continuum and Natalis de Wailly's (1841) concept of respect des fonds. With regards to design scope, the exploratory research design using a case study was used.

Literature

Literature for this paper touches on some relevant concepts and theories. The concepts reviewed include, role and functions of Archives, electronic records, preservation, conservation, archival resources, information service delivery, information and communication technologies (ICTs).

Role and Functions of Archives

An Archives is a platform, where people can go to find first hand facts, data and evidence from letters, reports, notes, memos, recordings, photographs and other primary sources. Archives come in all shapes and sizes. ICA (1999) defines archives as records, usually but not necessarily non-current records, of enduring value selected for permanent preservation. Archives will normally be preserved in repositories. The professional archivists who work in Archives make sure that all important records are available for research generations to come. To help preserve material resources, archivists in all repositories preserve records in acid-free folders within acid-free boxes that are placed in repositories with consistent temperature and humidity. Thomassen (2002) distinctively divide the role and functions of records into primary and secondary. The primary functions of records are the functions that the creator had in mind when creating them and in

particular the evidential functions. The primary or administrative value is the current value that records have for the office from which they originated. In their primary function records play an active role: they document and regulate social relations and are used for administrative and accounting purposes. The secondary function of records is the function which the creator generally does not have in mind and which records only acquire once they have fulfilled their primary functions: the cultural, historical and patrimonial functions. Which is what this study is concerned with the preservation of records fulfilling their secondary function that is archives.

Discussing the role and functions of archives, Wamukoya (2000) revealed that the need for archives and the role of record keeping operates in three distinct domains; the business domain consists of records needed to conduct business and to support further service delivery, while the accountability domain consist of both internal (such as reporting relationships) and external (to regulators, customers, shareholders and the law), records show that whether the organisation or individuals in it have met defined legal, organisational, social or moral obligations in specific cases. In all accountability forums, records are consulted as proof of activity by senior managers and auditors. Lastly, the cultural domain is one which requires that archival records are preserved and made available to the society for present researchers and for posterity. The cultural domain provides the basis for writing a country's cultural and national history. This is the secondary value of records that is when records are used for any purpose beyond the primary reason for which they were created.

Archives exist in order to remind organisations of their previous activities. It can therefore be said that records have administrative, legal, financial, historic, cultural and patrimonial value. The Australian Standard AS 4390 (1996) understands archives management as the discipline and organisational function of managing archives to meet operational business needs, accountability requirements and community expectations.

The Nature of Archival Records

All archives are documents, but not all documents are archives, Records Management Infokit (2007). An analysis of the unique properties of a record that separate records from more generic sources of information or data will be carried out. What follows is an explanation of what is required to produce authentic and reliable records.

Understanding the nature of a record will help to instigate the reliability of properly preserved records to provide evidence of a transaction, which makes them vital administrative resources. Firstly, a record must have content, which information is documenting the activities that have taken place, Records Management Infokit (2007). This content will provide the evidence that makes it a treasured managerial and accountability tool. What makes a record vital is the information it conveys, and this information is the most significant feature of the record. Secondly the record must have context, which implies that it should have a chronological relationship with all other records in the file to provide logical understanding of the story. Here the principle of original order has to be respected to maintain the context of the file and if any changes are to be made, the creator has to give the green light. Williams (2006) reports that context is relating to the process of which the record is a part; the environment and web of relationships in which the document was created and used.

Finally, it must have structure; thus, there must be an essential rationality to the presentation of information on whatever media the creator chooses to use, be it analogue or digital. This media on which information is to be recorded should be known by archivists. According to the Records Management Infokit (2007) all archival records should contain the following qualities:

Authenticity

Authentic archives are what they claim to be, created or sent by the person claiming to have created them and at the time claimed, Williams (2006). A record is said to be authentic if it is really what it claims to be and was effectively created or received at the time it claims it was. The authenticity of a record can be ensured by policies and procedures that control their creation, preservation and dissemination. Archival records most especially electronic records have to be guarded against all addition, deletion and alteration of their content by unauthorized persons. For the enhancement of information service delivery in State Archives in Cameroon, records have to be well preserved and guarded against any alteration.

Impartiality

The notion of impartiality in archival science is based on the fact that archival documents are created as a means to express action and as a product of that action, they are, as Jenkinson (1922) puts it, “free from the suspicion of prejudice in regard to the interests in which we now use them.” That does not mean that their creators and authors

are free from prejudice, only that the reasons and circumstances of their creation ensure that they were not written “in the interest or for the information of posterity,” as Jenkinson (1922) says. If the document is impartial in this sense, we may put our trust in its authenticity to the facts and acts of it. Archival records hold this promise of faithfulness to fact and act; they also threaten to reveal facts and acts which some interest would rather not see revealed. Protecting records from corruption is then a duty of archivists, whose methods and practices need to be devised as far as possible to preserve impartiality.

Neither does impartiality mean that the interpreter of the document may take it that the document somehow replicates an act or event. The larger context of the event and the context of the interpreter's use of the document leave ample room to complicate what truth can be derived from the document, impartial as it is in these theoretical terms, Records Management Infokit (2007). So long as the use does not corrupt the records, such fidelity to event as it possesses remains undiminished.

Completeness

For an archival record to stand as evidence regarding a transaction that has taken place, it should contain all information about that activity. A record must have all information concerning all activities in that context; it should be complete in regards to that specific activity, Jenkinson (1922). The file should contain all the items in order to permit the storyline to be complete and well understood by users and researchers.

Electronic Archives

Williams (2006) cited the National Archives of Australia website which described electronic records as, corporate information moved from paper memoranda and letters, to email messages. Reports, books, leaflets and publications of government agencies are now more likely to be accessed through websites. A shared folder on an agency's intranet replaces the correspondence file, and relational database systems replace paper forms and case files. According to the International Records Management Trust (2009) “an electronic record is a record that is created, generated, sent, communicated, received, or stored by electronic means and that requires some form of computer technology to access and use.” Electronic records therefore incorporate all information concerning activities and processes in organisations that are generated by machines or digitally. Electronic records systems are the sum of all machineries that

allow for the reading and manipulation of electronic records such as data bases, software applications, Portable Document Format (PDF), word documents, spread sheets, programmes and metadata. The preservation of digital media implies the management medium and electronic data either born-digital or afterwards digitised and converted to electronic records in office systems which include websites, e-mail, databases, and digital images.

Electronic records bring a fundamental and unique dimension to the preservation of records and the enhancement of information service delivery in archival institutions. The use of ICTs has considerably changed the way in which records are generated, collected, classified, preserved and disseminated. Electronic records bring significant challenges to government organisations that create them and to the State Archives that are to manage them, Williams (2006). However, this does not change the fact that records need to be well managed and to maintain their integrity and ability to provide evidence. There is a need for this to happen for accountability purposes, to support administrative action, to support recovery after disasters and to foster institutional and social memory. With the usage of ICTs in an organisation the collection, classification, preservation and dissemination of information resources become very easy. Servers can be used to store huge amounts of records and their metadata, in case of insufficient space or for security reasons cloud storage is equally an option. Firewalls and passwords should also be used for security purposes; office doors should be solid and have good locks. With the implementation of ICTs, little or no movement is required from anybody to collect or consult electronic records. Registered users or researchers in State Archives can consult these records within the confine of their rooms. With the usage of portals and social media platforms such as WhatsApp, Blogs and YouTube, State Archives can easily reach out to thousands of researchers at the same time and a good number of persons can consult one document at the same time. With Selective Dissemination of Information (SDI) State Archives can receive request for information from users, have the requests treated and sent each and every users' information resources personally to him/her through any social media handle. Williams (2006) in quoting Internet Archives which argues that even though some archival institutions currently use the Internet Archives to store and preserve their websites, in the long run all institutions will have to decide whether they are going to opt for a non-custodial solution such as

this or a custodial solution, in which these media are managed in-house.

For electronic archives to be well preserved there are some aspects that demand special attention.

Preservation Skills

Same with the preservation of analogue materials, the physical environment of digital media has an effect on their durability, consequently careful handling, controlled temperature and humidity, and proper storage should be ensured, Abdulrahim (2016). More so, there are a couple of technologies available for preserving digital materials with the aim of keeping their content accessible in case of technological obsolescence or media corruption; the most suitable one will depend on the type of data to be preserved and available resources.

Technical Preservation

Technical preservation involves conserving the original technical environment that operated the system, for instance the hardware, operating system and the original application software. This is a kind of "computer museum" solution, William (2006). It is more of a disaster recovery strategy and to reduce the dangers of technological obsolescence in archival institutions.

Refreshing

At this level data are copied to a new carrier of the same type. Thus, digital information is carried from one long-term storage medium to another of the same type, with no change in the bit stream (e.g. an older CD-RW to a new CD-RW) so the appearance of the content remains the same.

Migration of Data

During the migration process, data are copied or converted from one hardware/software to another, probably a software that you are not oblige by the proprietary constraints of a particular commercial supplier on how you use the software. This preserves the vital features of the data, even though the "look and feel" might change. This means you can periodically transfer data to a new generation of computer technology while preserving their integrity and enabling users to retrieve and display the data in the face of constantly changing technology, Abdulrahim (2016).

Metadata to Support Preservation Technologies

Whatsoever preservation technology that has been selected, the durability of digital information also depends on the production and maintenance of data about the resource that is preserved so that it can continue to be supported and accessed. Metadata is often referred to as "data about data", structured information that describes and/or allows us to find,

manage, control, understand or preserve other information over time, Millar (2010). If you think of examples of metadata in a paper archival environment you might come up with such things as indexes, catalogues and file covers, even the printed headers on letters. They all support, describe and package the information content. In the absence of such metadata or contextual descriptors the content cannot be timely accessed and be understood.

Preservation

Preservation is a term referring to the passive protection of archival materials in which no physical or chemical treatment to the item occurs, International Council on Archives (1999). Preserving state records properly does not only add worth to the collections, but it also allows archivists to better serve researchers who request access to these historic records of enduring and continuing value. Archives serve as evidence: to prove rights, confirm obligations, verify events, and substantiate claims Millar (2010). Resource (2002, p.16) in its definition stresses on the extensive administrative and curatorial aspects in its definition. Top management is in charge with the development of policies and strategic planning while the front-line staff or those at the transactional level are in charge of hands-on actions and treatment practices that are required to deal with those items brought to the Archives or those in repositories that are already deteriorating, Bell and Brown (2003). Bell and Brown (2013) defines preservation as the professional discipline of protecting materials by minimizing chemical and physical deterioration and damage to minimize the loss of information and to extend the life of cultural property and the act of keeping from harm, injury, decay, or destruction, especially through non-invasive treatment.

William (2006) makes mention of two main types of hazards that can cause deterioration, destruction or damage to archives: extrinsic and intrinsic hazards. The external agents are those introduced by conditions of storage and use; the internal are those within the materials themselves. Extrinsic risk includes temperature and humidity, acidity, fire, flood, atmospheric pollution, insect and mould infestation, theft, vandalism and poor handling. As an ISO 15489-1 (2001) requirement an organisation should have guidelines as to who is permitted access to records, and on what circumstances is access permitted. Once original records are destroyed they cannot be replaced, Mampe and Kalusopa (2012)

The concept of preservation raises some issues of policy for instance; preservation choices include the option of copying that is photocopy or scanning archival materials and offering users and researchers a substitute for the original copy. With such a policy in place, the security, longevity and life span of the original, unique copies of records is ensured and prolonged. The frequency of manipulation of these records on a daily basis is reduced to the minimum. With the advent of ICTs, analogue records can be digitised. Instead of discharging analogue copies of records to users and researchers which can only be consulted by a single user or researcher at a time, electronic records that is digitised copies of analogue records, National Archives have the possibility of serving many users and researchers at once regardless of where they are located. Using ICTs, the management of archives most especially the dissemination process is enhanced with optimum satisfaction. For Blade (1980) as cited in Walker (2013, p. 50), “the surest way to preserve your archives in healthy conditions is to treat them as you would your own children, who are sure to sicken if confined in an atmosphere which is impure, too hot, too cold, too damp or too dry.”

Conservation

Conservation is the intrusive protection of archival material, by the minimal physical and chemical treatments necessary to resist further deterioration, which will not adversely affect the integrity of the original, International Council on Archives (1999). Millar (2010) asserts that conservation is the active safeguard of archival materials, habitually by the use of physical and chemical treatments so as to repel extra wear and tear but without harmfully upsetting the integrity of the original copies of records. With conservation, there is the usage or the treatment of records already deteriorating with chemicals. The term conservation has also been defined by International Federation of Library Associations and Institutions (2010 p. 65) as “specific practices taken to slow down deterioration and prolong the life span of an object by direct intervention in its physical or chemical make-up”. According to Baker, as cited in Ovowoh and Iwhiwhu (2010), preservation is the action taken to anticipate, prevent, stop, or slow deterioration. It can also be referred to the skill of anticipating and preventing decay, while conservation is direct physical intervention arresting or slowing down deterioration of information resources in preservation, attention is given to every element that encourages the protection of the materials including the housing, storage system and security

against such threats as theft, mutilation and mishandling. Preservation is therefore, a more embracing concept and it includes conservation.

Information Service Delivery

Service delivery is any act offered or performed that is essentially intangible in nature and does not in itself result in the transfer of the ownership of an object but rendering service. Its production may or may not be linked to a physical object or product International Council on Archives (1999). Services rendered by the National Archives include the collection, classification, preservation and dissemination of archives to the public. Good records management boosts efficient and effective public service delivery in that it minimizes litigation risks, promotes accountability and transparency, ensures compliance with regulatory requirements and supports informed decision-making, Grand (2018). Ngoepe (2004) states that better information service delivery always begins with better records management practices. Therefore, proper records management supports efficiency and effectiveness in information service delivery. Kemoni and Ngulube (2007) have also confirmed that proper records management is substantial to government's realisation and achievement of their goals such as the rule of law, accountability, management of state resources, and protection of entitlements of its citizens as well as enhancing foreign relations. Nandain (2006) on his part notes that, "effective information and records management provides the foundation for accountability, protection of human rights and increases citizen's awareness to their rights". Ngoepe (2004) in citing Walter and Christopher argues that sound records management is the foundation any government needs to provide services, fulfil its obligations of accountability towards its citizens and protect their rights. While acquiring, organising, and preserving national heritage, it is important for archivists to provide access to their collections in the archival repositories. Abioye (2009) notes that access is one of the most important facets of archival management. By access, he is referring to both the physical access and the intellectual access.

The archivist of the 21st century has to make use of Information and Communication Tools (ICTs) such as computers, databases, servers, Internet, video camera surveillance systems, magnetic codes and barcodes, social media platforms for the collection, classification, preservation and dissemination of archival materials to users and researchers. No longer can archivist retire to a dusty room, piled high with archives; their space has been invaded by

technology, and by a management culture, Forde (1997). With the implementation of ICTs in the management of archives in archival institutions, service delivery has been enhanced in numerous ways. Electronic records either born-digital or digitized analogue records can be consulted or disseminated to thousands of users and researchers in various locations at the same time conveniently.

Theoretical Review

The theories that informed the research for this paper include;

Theodore Schellenberg's Records Life Cycle Theory (1956)

This theory elaborates the progression of a record from when it is created in the government agency to when it is selected for preservation in State Archives. The theory has three phases: active, semi-active and inactive per instruction of the disposal authority.

Frank Upwards Theory of Record Continuum (1990)

The records continuum theory developed in Australia is an indicator of the increasingly holistic approach to records. Australian Standard AS 4390 as quoted by Williams (2006) affirms that it is "... a consistent and coherent regime of management process from the time of creation of records (and before creation, in the design of recordkeeping systems), through the preservation and use of records as archives."

Natalis de Wailly's Concept of "Respect de Fonds" (1841)

This concept states that the records of an individual, family or organisation must be kept together in their original order and not mixed with the archives of another individual, family or organisation. This fundamental concept embodies the concept of provenance and original order.

Methodology

The study was a case study of two Archives in Cameroon: The National Archives Buea and the Presbyterian Archives at the Synod Office in Buea. The target population was the same as the accessible and the sample size that stood at 10 respondents. Content and face validity were ensured. Data were collected using interview guide, focus group discussion and observation checklist. Data were analysed thematically.

Findings and Discussion

The data collected for this study were basically qualitative. The data were analysed thematically and the themes were grouped on a theme-grounding-quotation table. Findings are presented

and discussed in line with the research questions that guided the research.

Records as Critical Sources of Information Impact on Information Service Delivery?

Research Question One: How Do Techniques Used by Archives Services in Managing Archival

Table 1: Findings on Techniques Used by Archives Services as Critical Sources of Information and Impact on Information Service Delivery (Findings Using Interview Guide)

Question	Grounding	Response Synod Archives Buea	National Archives Annex Buea
What techniques do you use, the physical or electronic preservation techniques?	1	"We use both the analogue and digital preservation techniques but more of the paper based"	"Analogue preservation technique"
Can the preservation techniques you use achieve sustainability of archives for posterity as critical information sources?	1	"Yes, they can if kept under the right temperature, away from biological agents, ultraviolet light and most importantly preserved electronically". "Archives have proven to be critical information sources more and more from the influx of researchers that come every day to use our archives service"	"Yes, to an extent, there have been able to do so since the German era". Achieves have always been critical sources of information and even more so in current paradigms"
Taking into consideration preservation hazards on archives like pest, theft, water and fire incidents, can your preservation techniques combat these and make your records sustainable?	1	"For now, it is difficult but we hope that with the renovation we are doing especially with digitization we should be able to make our records sustainable"	"To an extend we use insecticides or fumigation, dehumidifiers, blinds covering windows". "We are waiting for innovation planned by the directorate of national archives"
With the advent of Information and Communication Technologies (ICTs) how well does your institution use ICTs to beef up preservation?	1	"The percentage of ICT usage to enhance preservation is about 5 percent; this has been due to budget constraints and administrative bottlenecks. Archives are relegated to the background and not given the place they deserve. Although there is some reawakening "	"There was a pilot study for a digitization process in 2012 with over 80,000 endangered items digitized, after the pilot phase the actual project is still awaited. With the renovation of the National Archives we hope ICTs will be given a place of honour"
Are the techniques appropriate and effective? How have these techniques affected information service delivery?	1	"Positively, hoping that after the renovation with the digitization process information service delivery will be improved upon." "Preservation equipment out dated or do not respect standards " "Little or no use of electronic system of preservation and no respect of current trends"	"Negatively because for instance with the fumigation process the building is locked for a while and no staff or user can have access to the Archives." "In the 21 st century we would like to use the digital means of preservation"

"The techniques are not appropriate" "Not appropriate" "With the present situation information service delivery is very slow"	"To an extend but needs to be updated" "Negatively and has made it unsatisfactory"
---	--

Table 1 presents findings with respect to research question one on Findings on Techniques Used by Archives Services as Critical Sources of Information and Impact on Information Service Delivery. Results obtained in response to research question one on techniques Archives services are using to preserve archival resources and impact on information service delivery show that a majority of the staff indicated that there is little or no use of digital means of preservation, preservation equipment are outdated or do not respect standards and the preservation techniques are not appropriate, ineffective and have adverse effect on information service delivery making it unsatisfactory. In the 21st century with the advent of the Internet and ICT tools and techniques appropriate for archives management and access, it is ideal for both Archives services to fully engage in digitizing their archives to meet current trends. Using social media platforms such as WhatsApp, Facebook or emails they can implement selective dissemination of information for effective information service delivery. This is in line with what Forde (1997) describes as an ever-increasing number of users of archival materials, most of them with little or no archival or historical background knowledge on archives management, this demands more from the archivist and easier means of access and dissemination of records to the growing population of users and researchers.

Table 2: Findings from Observation Checklist on Techniques Used by Archives Services as Critical Sources of Information and Impact on Information Service Delivery on the Techniques

	Synod Archives		National Archives Annex Buea	
	What Exist	Comments	What Exist	Comments
1. Building and Security				
i. Solid doors	✓		✓	
ii. Solid locks	✓		✓	
iii. Window protectors (with corrugated iron)	✓		✓	
iv. Solid floors	✓	Degenerating	✓	Degenerating
v. Fire resistant ceiling and zinc				
vi. Storage space	✓	Insufficient	✓	Insufficient
vii. Drainage system	✓		✓	
viii. Smoke dictators	⊗			
ix. Sensors against breakage				
x. Appropriate security signage				
xi. Electronic access to restricted areas, etc				
2. Equipment and Accessories				
i. Archives boxes	✓	Insufficient		
ii. Lighting system	✓	Insufficient	✓	Insufficient
iii. Sanitary facilities	✓		✓	
iv. Archives shelves	✓	More wooden than metallic	✓	Wooden
v. Index for sourcing (manual/electronic) for archives	✓		✓	

vi. Computers and Internet connectivity	✓	Insufficient	✓	Insufficient
vii. Dehumidifiers			✓	Insufficient
viii. Fire extinguishers			✓	Out dated
ix. CCTV camera				
3. Facilities	What Exist	Comments	What Exist	Comments
i. Storage facilities	✓	Insufficient	✓	Insufficient
ii. File jackets	✓	Insufficient	✓	Insufficient
iii. Office materials	✓	Insufficient	✓	Insufficient
iv. Ladders	✓	Insufficient	✓	
v. Aprons	✓		✓	
vi. Gloves	✓		✓	
vii. Nose mask	✓		✓	
viii. Unsweetened milk	✓		✓	

Key

✓	Available
	Not available

Results from the observation checklist reveal that both institutions have solid doors, solid locks, and window protectors. With regards to smoke dictators, sensors against breakage, electronic access to restricted areas, both institutions have none. Both institutions have insufficient storage space, lighting system, computers and Internet connectivity, file jackets and office materials. National Archives Annex Buea does not have archives boxes which is very essential in the preservation of archives. Their shelves are wooden which can be easily infested by insects, wood worms, ravage by fire or soaked by water. Both National Archives Annex Buea and the Synod Archives are under the mountain a cold place needing dehumidifiers but they are insufficient. The importance of fire extinguishers in Archives cannot be over emphasized but that of the National Archives Annex Buea are outdated and non-in the Synod Archives. Walker (2013) observed that deterioration due to natural ageing will continue but can be considerably diminished by minimizing the effects of external causes of deterioration such as temperature and relative humidity, biological agents, flood, and mishandling. The archival records of the National Archives Annex Buea are in danger with most of the file jackets in which these archival records are preserve in deplorable conditions. It is hoped that after the renovation project appropriate facilities like archives boxes especially metallic will be provided to help protect these historic documents from light, biological factors and dust.

If ICTs are used in National Archives the collection, classification, preservation and dissemination of information resources become very easy. The records continuum theory developed by Frank Upward in (1990) in Australia is an indicator of the increasingly holistic approach to records management. This theory looks at the management of records in a digital milieu wherein the functions of an archivist or the steps through which archives go through before reaching users that is collection, classification, preservation and dissemination can be done on a single platform at the same time. It is thus important for both archives services under study in the 21st century to go digital. An automated archival institution can respond to the queries of its researchers without anybody moving. This is a dream we hope will come true for both institutions after the renovation project.

Research Question Two: How do the Challenges in Using Current Techniques by Archives Services as Critical Sources of Information Impact on Information Service Delivery**Table 3: The Impact of Challenges in Using Current Techniques by Archives Services as Critical Sources of Information and Impact on Information Service Delivery**

Question	Grounding	Response Synod Archives Buea	National Archives Annex
What are some of the preservation challenges you face?	1	"We face infrastructural challenges; this building is small and is not an appropriate archive building. Other challenges also include insufficient and unqualified staff, insufficient preservation equipment like archives boxes, metallic shelves"	"No preservation equipment like fire extinguishers, archives boxes, no budget"
What are the preservation hazards or risks your archival resources are exposed to?	1	" Biological agents, dust, light, theft, temperature"	" Humidity, theft, biological agents"
What are the consequences of deteriorated or miss shelved archives to your institution?	1	"Loss of information consequently unsatisfactory information service delivery"	"Researcher's time is wasted, information is lost"
How has information service delivery been affected by these challenges?	1	"Negatively I would say. A researcher that leaves let's say Buea like you and come here for research and discovers that the document he wanted to consult is missing. He will really be disappointed."	"Information service delivery is slowed down"
How frequent do you receive researchers and users in your institution	1	"For now, our records are not open to researchers due to the renovation project I told you about but when there were open we had researchers on a daily basis"	"Everyday"

In response to the challenges faced in the preservation of archival resources and the impact on information service delivery, the heads of the archives services were of the opinion that they face infrastructural challenges, outdated preservation equipment. They went further to reveal that archival resources are exposed to biological agents, dust, light, theft which affect information service delivery negatively, whereas Abioye (2009) notes that access is one of the most important facets of archival management. If the Synod Archives and the National Archives Annex Buea succeed to achieve maximum preservation of archival records they will be able to achieve what Lipchak (2002)

notes that transparency and accountability in a democratic society are ultimately achieved by giving the public the right of access to information and this can be achieved through sound records management. In relation to challenges faced in the preservation of archival resources and the impact on information service delivery, the staff feel that preservation equipment are outdated and insufficient, insufficient spaces coupled with no motivation and no budget. From the findings, clarity has been made on the fact that archives have been relegated to background and not given the necessary attention which they deserve. This ties with Akotia (2003) who notes that national archival

institutions are charge with the assignment of ensuring the proper management of public records, promoting the preservation and accessibility of archival heritage, and overseeing the national archival system, but if the National Archives has out-dated preservation equipment, no budget and the staff not motivated the attainment of this goal leaves much to be desired.

Conclusion

The Synod Archives and the National Archives Annex Buea use basically the analogue preservation technique with adverse effects on information service delivery with very little digital services. Preservation techniques employed by both institutions can preserve records for posterity. The archival resources in both institutions are exposed to chemical and biological hazards. The preservation equipment are out-dated and insufficient. These institutions equally face the challenge of insufficient space and funds, for instance the National Archives Annex Buea does not have a budget. Of its own. It is clear that the state of the archives services although great information sources, are unable to perform adequate and quality information service delivery because they are poorly resourced. There is still a lot to do to bring the state of archives services in Cameroon near standard norms. These shortcomings noted in this purely synoptic article are not an isolated case, they reflect the level of decay of the national archival system. It is urgent for Cameroon to build a voluntary and consistent public policy to better address the issue of archiving. Beyond the purely scientific and technical aspects, the very survival of the Cameroonian Nation depends on it.

REFERENCE

- [1] United Nations Education and Scientific Organisation, [UNESCO]. (2003). *Charter on the preservation of the digital heritage*. Retrieved on May 1 2020 from, http://portal.unesco.org/ci/en/files/13367/10700115911Charter_en.pdf/Charter_en.pdf.
- [2] Abdulrahim. (2016). *Preservation and Conservation of Records in the National Archives and National Museum*. Kaduna.
- [3] Abioye, A. (2009). Searchers' perceptions of access regulations in Nigerian National Archives. *Library, Philosophy and Practice*. Retrieved on April 2 2020 from, <http://unllib.unl.edu/LPP/abioye.htm>.
- [4] Abuki, B. J. (2014). *The role of records management in public service delivery in county*
- [5] Akotia. & Pino. (2003). Public sector records systems in Ghana: some lessons in development management. *African Journal of Library, Archives and Information Science* 13, 107–117.
- [6] Bell, & Brown. (2013). *Archives and records keeping: theory into practice*. Facet publishing, UK.
- [7] Forde, H. (1991). The education of staff and users for the proper handling and care of archival material. *A study with guidelines*.
- [8] Forde, H. (1997). *Preservation and conservation of documents; problems and solutions*.
- [9] Gracy, (2017). *Emerging trends archival science*. Rowman & Littlefield Publishers. p.168. <https://rowman.com/ISBN/9781442275140/Emerging-Trends-in-Archival-Science>
- [10] IFLA. (2010). *Principles for the care and handling of library materials international preservation issues, number one*. Retrieved on March 25 2020 from, <http://archive.ifla.org/VI/news/pchlm.pdf>.
- [11] International Council on Archives. (1999). *Guidelines on Archives*.
- [12] International Council on Archives. (1997). *Guidelines on Disaster Prevention and Control in Archives*.
- [13] International Records Management Trust. (2009). *Developing infrastructures for records and archives services, Alison Walker, basic preservation, The Estate of Beryl Bainbridge* 2013.
- [14] ISO 15489-1. (2001a). Norme internationale : Information et documentation – « Records management ». Partie 1: Principes directeurs, [Genève], ISO.
- [15] ISO/IEC, 31010. (2009). “*Risk Management - Risk Assessment Techniques*”, ISO Standarts, Geneva.
- [16] Jenkinson, H. (1922). *Manual of Archive Administration*, 1st edn.
- [17] Jenkinson, H. (1922). A manual of Archives administration. *Internet Archive*. Retrieved from <http://www.archive.org> on April 25 2020.

- [18] Jenkinson, H. (1980). *“The English Archivist; a new profession” Selected writings of Sir Hilary Jenkinson*, Gloucester.
- [19] Kathpalia, P. (1990). Documentation, Libraries and Archives: Conservation and restoration of archive materials. Republic of Turkey Prime Ministry- General Directorate of State Archives. p.171.
- [20] Kathpalia, Y.P. (1973). *Conservation and restoration of archive materials. Documentation, Libraries and Archives. Studies and Research 3* Paris. UNESCO.
- [21] Kemoni, H. (1996). “Preservation and conservation of archival materials: The case of Kenya”. *African Journal of Library, Archives and Information Science*, no 1.
- [22] Kemoni, H. (2002). “The utilization of archival Information by researchers in Kenya: A case study of the University of Nairobi”. *African journal of Library, Archives and Information Science*. 12(1), 69-80.
- [23] Kemoni, H, Ngulube, P. (2007). National Archives and the effective management of public sector records in Kenya.
- [24] Lipchak, A. (2002). *Information management to support evidence-based governance in the electronic age - a policy forum discussion paper*.
- [25] Mampe, G. & Kalusopa, T. (2012). Records management and service delivery: The case of Department of Corporate Services in the Ministry of Health in Botswana. *Journal of the South African Society of Archivists* 45, 2-23.
- [26] Millar A.L. (2010). Archives: Principles and Practice in Records Management and Archives. Retrieved on March 20 2020 from, <http://www.nationalarchives.gov.uk/document/s/informationmanagement/archive/principles-and-practice-an-introduction-to-archives-for-non-archivists.pdf>.
- [27] Nandian, G. (2006). The importance of record’s and archives management.
- [28] Ngoepe, M. (2004). *Accountability, transparency and good governance: the National Archives and Records Service of South Africa’s role in helping government to better service delivery to the South Africans*. London. Sage Publications.
- [29] Records Management Infokit (2007).
- [30] Ovowoh, R. & Iwhiwhu, B. (2010). Preserving information bearing material in higher education institutions in Nigeria. *Library Philosophy and Practice*. Retrieved on April 5 2020 from, <http://www.edu/mbolin.htm>.
- [31] Stielow, J. (1992). Archival theory and the preservation of electronic media: opportunities and standards below the cutting edge. *American Archivist / Vol. 55*.
- [32] Thomassen, T. (2002). A first introduction to Archival Science. *Archives and Museum Informatics* 1(4):373-385
- [33] The Australian Standard AS 4390 (1996)
- [34] Williams, C. (2006). *Managing Archives: Foundations, Principles and Practice*. England.
- [35] Walker, A. (2013). *The Preservation advisory centre: Basic preservation*. Johnson & Alcock Ltd. Retrieved on April 5 2020 from, <http://www.bl.uk/blpac/pdf/basic.pdf>.
- [36] Walker, A. (2013). *The Preservation advisory centre: Basic preservation*. Johnson & Alcock Ltd. Retrieved on April 1 2020 from, <http://www.bl.uk/blpac/pdf/basic.pdf>.
- [37] Wamukoya, J. (2000). Records and Archives as a basis for good government: Implications and challenges for records managers and archivists in Africa. *Records Management Journal* 10(1),23-33. Retrieved on April 10 2020 from, t: <http://www.national.archives.gov.za>.