Impact of Information and Communication Technologies in Contemporary Libraries: Case Study of Imo State Public Library Board Owerri

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Abstract
The purpose of this study was to examined the impact of ICT in contemporary libraries in Imo State public library Owerri,. The survey research was used in this study while the questionnaire instrument was used for data collection. The population of the study comprises of 130 staff of the library and the entire 130 number of staff was used as sample size. The data were analyzed using. The data collected was analyzed using Mini TAB 16 package for calculating the mean; standard deviation and testing of hypotheses. The research questions were answered using descriptive statistics, the mean score and standard deviation. Mean score above the expected or criterion mean of 2.5 was accepted while those below the value were rejected. The hypotheses were tested using ANOVA variance. The findings reveal that ICT has, positive impacted on the Acquisition, Circulation, Cataloguing and serials operations and services of Imo state Public Library Owerri. The study also found that the major problems militating against ICT adoption and use in Imo State public library include, lack of ICT implementation policy, Inadequate funding, poor maintenance culture, inadequate trained ICT staff, epileptic power supply etc,. Based on the findings of the study recommendations were made on how to solve the problems such as formulation of well-articulated ICT policy, provision of adequate fund, etc.

Keywords: Library, ICT policy, ICT Implementation, ICT Impact

1.0 Introduction

The advances made by the information and communication technology have doubtlessly made tremendous impact on human life and society. These have brought about obvious changes in the way people live and work .Activities which were carried out by analogical and manual process/ procedures can now be undertaken by simple, effortless, screen touch of the digital procedures. Obviously the results of the present ICT compliance of the digital world as compared to the analogue and manual process of activities are quite phenomenal and have enhanced higher productivity with minimal effort and time consumption. Libraries

especially the public libraries as information Centre are not left out in this revolutionary impact occasioned by ICT. It has brought about unprecedented and transforming changes in information handling which are now prominent in all library operations and services.

The nature, scope and pattern of library operations have increased and also widened. They have greatly reshaped the way libraries collect, process, preserve retrieve and disseminate information. Prior to the emergence of ICT, the operations of libraries especially Public libraries are cumbersome, time-wasting and frustrating activities, but the advent of ICT and its adoption in the and operation have become library services has become easier faster and more result oriented. Libraries now use different types of ICT facilities in their operations and service delivery in core library functions such as Acquisition/Collection Development, Cataloguing and Classification, Circulation activities, Serials collection and Control services, Reference services, Current Awareness services Selective dissemination of information, Bibliographic services, Document delivery etc. can be provided more effectively and efficiently using ICT. Krubu and Osawaru (2014) opined that libraries now use ICT to automate their core functions implement management information system, develop institutional depositories of digital local content, and initiate ICT based capacity building programme for library users.

According to Edom (2012) Public libraries are the only library institution established by government to inspire and encourage independent and continuing education of citizens' especially, those living within the particular environment or locality. Public library open its doors to provide library and information services to people in different walks of life without bias to their gender, age, religion, inclination, academic qualification, race, profession, national language etc free of

change. The major objective of Public libraries lie in the provision of resources/service to meet the information needs of its varied user and the ability of the public library to pursue and realize these determines its relevance and effectiveness. The advancement in ICT has also influenced the demand made on Public Libraries, in terms of expectation of their customers in national and local policy agenda in which public libraries operates and these have equally influenced their service delivery (Oghenetega, Umuji, Obue 2014). In order to meet these challenges, many public libraries are incorporating ICT facilities into their operations and services.

According to Patrica (2000) Computer technology has redefined many services in public libraries including collecting, searching with online public Access (OPAC) and so on. Imo State Library board is a public library established in 1976 by the former government of East Central State to provide for the information needs of the Imo citizens. It is a local Centre that makes all kinds of knowledge and information readily available to its users through its range of resources and services. Imo State library board service is made available to all members of the community regardless of race, nationality, age gender religion, language disability, employment, status and educational qualification. Imo state library board has a total of 130 staff, ten branch libraries spread across 27 Local Government Area. The library was structured into eight divisions namely Administration Planning, Research and Statistics, Accounts and Business Library Support of Public Library Division, Technical Service division, Special library division and the Rural and branch library services division. The public library sections include Reference, Lending, school library and the children library. The special library services have two prominent sections which serve two special categories of the pubic namely: the Nigerian

section for research and the handicapped section for the physically challenged persons.

The adoption and effective application are also not without challenges and these challenges are likely to influence the effectiveness, efficiency of ICT to deliver on its expectations. Some of these expectations include, but not limited to, high of ICT facilities, management and maintenance of ICT facilities, absence of trained ICT personnel as well as poor and erratic power supply in Nigeria. Consequently, the impact of ICT in any locality can only be properly measured in the light of the aforementioned challenges

This work therefore was carried out to examine the impact ICT in the operations and services of Public libraries with particular reference to Imo State Public library Owerri, specifically, the study sought, to find out the impact of ICT in Housekeeping functions and service delivery of the library under study.

1.1 Statement of the Problem

The impact of information and communication technology is being felt in all types of library including the public library. There is also an obvious shift from the traditional or manual library operations to the information and technology driven operations and this has led to the reorganization in the scope, nature and pattern of library operations and service delivery. However, the adoption and use of ICT in many public libraries in Nigeria are fraught with many challenges ranging from high cost of ICT facilities poor income absence of effective ICT implementation policy. It has been observed that many public libraries especially Imo State library board lack adequate trained personnel for ICT. Skilled personnel are needed for effective manipulation of ICT facilities and equipment and absence of these will constitute an impediment to its adoption, use and will ultimately hinder its impact in the library. Again, it is a well-known fact that the

impact of ICT have not being fully felt in Nigerian libraries due to the problem of unsteady power supply. ICT is electricity driven and where power supply is not steady it will definitely impede its impact. It Has also begin observed that many public libraries including Imo state library board lack well-articulated policy on ICT adoption and use, Situations such as these could jeopardize quality decisions on ICT matters. Other problems which have being posing challenges to the impact of ICT in libraries include high cost of ICT facilities, inadequate accommodation, lack of appropriate software and technical knowhow for its smooth operation. There is no gain-saying the fact that provision of adequate fund/ funding in the adoption and implementation of ICT In the contemporary libraries cannot be over emphasized, because funds are needed to acquire and maintain ICT systems/ Equipment, training and retraining of ICT personnel ETC. However, It has been observed that the funding profile of Imo State Library, both in terms of its adequacy and promptness of supply leave much to be desired, and consequently present a serious challenge to the realization of ICT driven librarianship.

It is against this background that this study seeks to examine the impact of ICT in the operations of Imo State Library Board Owerri.

1.2 Purpose of the Study

The major objective of the study is to establish the impact of ICT in the operations of Imo state public library Owerri in this new era of librarianship. Other specific objectives of the study include:

i.   To determine if Imo State public library, Owerri is automated

ii. To ascertain the impact of ICT on the Acquisition operations of Imo State public library, Owerri

iii. To examine the impact of ICT on the Cataloguing operations of Imo state public library, Board Owerri

iv. To determine the impact of ICT on the Circulation operations of Imo State public library, Owerri.

v. To determine the impact of ICT on the serials operations of Imo State public library, Owerri.

vi. To ascertain the challenges of effective application of ICT on the house keeping operations in Imo State public library, Owerri.

vii. To ascertain the impact of ICT on the reference services of Imo State public library, Owerri.

1.3 Research Questions
The following research questions are formulated to guide the study;

i. Is Imo state public library automated?

ii. What is the impact of ICT on the Acquisition operations of Imo State public library Owerri?

iii. What is the impact of ICT on the Cataloguing operations of Imo state public library Owerri?

iv. What is the impact of ICT on the Circulation operations of Imo State public library Owerri?

v. What is the impact of ICT on the serials operations of Imo State public library Owerri?

vi. What is the problems that hinder effective application of ICT on the house keeping operations in Imo State public library Owerri?

1.4 Hypotheses
The following hypotheses stated in null form were formulated for the study:

1. H_{01}: The mean rating scores of respondents on the impact of ICT on Acquisition Operations do not differ significantly at $P<0.05$

2. Ho_2: The mean rating scores of respondents on the impact of ICT on cataloguing operation do not differ significantly at $P<0.05$

2.0 Literature Review
Qiaing (2003) defined information and communication technology (ICT) as the application of communication technologies consisting of hardware, software, networks and media for collecting storing, processing, transmission and preservation of information via voice data, text or images. These are technological processes that link the computer to the global telecommunications network that make it possible for users to acquire process compare store and disseminate oral, printed and pictorial information. According to Eke (2006), observes that embraces all the technologies that enables the handling of information and facilitate different forms of communication between man and electronic systems such as radio, T.V. cellular phone, computer networks and satellite systems ICT therefore is the means of capturing, processing storing retrieving and dissemination of information by electronic or digital means. ICT is usually used interchangeably with IT to mean all the technology applied to information handling and management.

The cardinal objectives of libraries are the provision of information resources to satisfy its customers. The functional of a library and its relevance is measured by their ability and effectiveness in realizing these objectives. Many libraries are embracing and adopting ICT in their operations and services in order to meet with the challenges of information provision and management in digital era. Krubu and Osowaru (2011) noted that many public libraries in Nigeria are incorporating ICT facilities into their operations and services in order to meet with the challenges of fulfilling its function in the

computer age. Oni (2004) opined that with ICT, this basic function of a library which includes acquisition, organization dissemination and maintenance are achieved. The resultant effect is that information delivered is timely, accurate, precise and relevant.

Mohamned (1991) insists that ICT has rapidly transformed the content and services of libraries. Mason (2004) observes that libraries are classic examples of how automation has impacted on the traditional librarianship. The impact of ICT in public libraries operations and services can not be over emphases. In Nigeria, the application of ICT to public libraries has helped in providing a wide knowledge base for information services and information users. The cumbersome and slow pace activities associated with manual operations are been removed. The adoption of ICT has also helped in promoting Nigerians participating in the concept of universal bibliographic control (UBC) and Universal availability providing its own resources for world wide access, while at same time accessing others (Ogheneteja, Umeji and Obue, 2014).

Ajibeno (2003) notes that as a result of the impact of ICT on technical services, the role of catalogues have completely (changed. Their role now involves operations that had become integrated. Adesoji et al (2003), carried out a study on the Impact of ICT on cataloging and classification of library materials and found that ICT has impacted on cataloguing and classification in areas like easy and increased Accessibility, cost effectiveness, resource sharing, Resource availability, reduced duplication of efforts, reliable storage and accuracy. Antherganam and Sheja (2008) carried out a study on the impact of ICT on LIS and its shifts and practices in university library and found that libraries are making good use of the available ICT faculties. With the help of telephone, fax etc, reference queries are answered faster than

before. They also found that SDI, CAS are also carried out faster, issue and return of book, renewal, selection of books, price checking are all done very effectively. About 90% of the users of the library search OPAC to get information on the where about of library materials.

Nwaigwe (2005) noted that the adoption and use of ICT in public libraries and other information centers in Owerri has really impacted positively on the information seekers in the municipality. Ogheneteja, Umeji and Obue (2014) posits that with the introduction of ICT in Edo public library, current awareness services selective dissemination of information etc. are assured for users. Ogheneteje, Oyenike and Ujulu (2014) observed that libraries at most public libraries provide reference and research help to the general public usually at a reference desk but now it is done using telephone interview. Problems associated with the adoption and use of ICT facilities in public libraries include limited or restricted access to users poor maintenance culture, poor metrology lack of trained personnel; illiteracy high cool of ICT equipment, lack of adequate infrastructure, Erratic Rover supply, policy structure of the government, political factors cultural and technological factors.

3.0 Methodology

The survey method was used for the study. The population of the study comprises of all the staff of Imo state public library board Owerri and there are one hundred and thirty (130) in number. The entire one hundred and thirty (130) was used as sample size. The instrument for data collection for the study was the questionnaire. The items in the questionnaire were structured and designed along four-point Likert scale. The four point scale was used to register the extent of agreement or disagreement with a particular statement of opinion. The researcher personally visited Imo State Public Library

Owerri and administered the questionnaire to the respondents. The data collected was analyzed using Mini TAB 16 package calculating in the mean; standard deviation and testing of hypotheses. The research questions were answered using descriptive statistics, the mean score and standard deviation. Mean score above the expected or criterion mean of 2.5 was accepted while those below the value were rejected. The hypotheses were tested using ANOVA variance.

Decision Rule: If p-value 0.05, reject null (Ho) and accept the alternative (H1).

4.0 Data analysis and discussion
Research Question

1: Is your library Automated?

Table 1: Distribution of responses on the Automation of the library.

Option	F	%
Yes	13	100
No	-	-
Total	130	100

The analysis on Table 1 shows the responses of the respondent on the automation of the library. All the 130 staff of the library representing 100% answered 'Yes' indicating that the library is automated. This shows that Imo State public library is automated. The findings of this study confirm Madu et al (2000) assertion that Modern librarianship is gradually shifting from service delivery to its clientele to the adoption and use of ICT in library operations. Starter (1995) opines that "the computer technology and its allies are today very predominantly used by librarians in their operations because of its high potency in illustration of techniques and concepts.

Thus, library operations will be made more efficient and result oriented with the use of ICT. The realization of this has made many libraries in Nigeria adopt the use of ICT in order to enhance efficiency of its services. To further buttress this, Madu (2000) noted that information technology is applied to libraries and information centers to ensure that information delivered is timely, accurately precise and relevant. In the same vein, Ayo (2000) states that some libraries in Nigeria are using information and communication Technology for their data-base management, internet search, website management, and general online services.

The benefits of automating the library system cannot be overstressed. Adeniran and Madu (2000) summarized the advantages of utilizing ICT in library and information services as follows:-
(i)   It gives better access to information
(ii)   It encourages possibilities for cooperation
(iii) It promotes effective and efficient service delivery.
(v)   It provides up-to date information

Oni (2000) asserts that the future of library and information services in Nigeria and all over the world is bound up closely with the development of information technology (IT), as many of their activities can be enhanced and many new services developed using suitable information technology in the appropriate way. Towards this end, it was therefore clear that the adoption and use of ICT in any library be it academic or public is greatly imperative. The automation of Imo state public library was a good development in a right direction as it will enhance its housekeeping operations.

Research Question 2:

What is the Impact of ICT on library operations of Imo State public library Owerri?

Table 2: Distribution of Responses on Sections of the Library that are fully Automated.

	Library Sections	F	%
i	Cataloguing	21	16.2
ii	Classification	21	$\frac{21}{130} \times \frac{100}{1} = 16.2\%$
iii	Acquisition	22	$\frac{22}{130} \times \frac{100}{1} = 16.9\%$
iv	Serials	30	$\frac{30}{130} \times \frac{100}{1} = 23.0\%$
v	Circulations	36	$\frac{36}{130} \times \frac{100}{1} = 27.7\%$
	Total	**130**	**100%**

Table 2 shows the distribution of responses on the different sections of the library that were fully automated. All the sections show impact of ICT to a certain degree. Classification and cataloguing had 21 (16.2%) responses respectively; Acquisition had 22 (16.9%) responses while circulation and serials section had 30 and 36 (23.0% and 27.7%) respectively. This reveals that all the circulation and serials sections of Imo State library were fully automated. The findings of the study reveal that ICT has impacted positively on the house keeping operations of Imo State library in varying degrees as shown in the analysis on Table2. The application of ICT in public libraries has great positive impact in information service. This was confirmed by Madu (2000) when he stressed that the ICT applied to the library operations and information centres are to ensure that information delivered was timely, precise and relevant. Aguolu and Aguolu (2006) confirmed the above, by saying that computers were employed in document transactions, records, references and information data-bases as well as regular library housekeeping functions.

Both Anaeme (2006) Ogunlombi (2005) and Godden (1981) have all indicated the areas of ICT application in the libraries to include: collection development, cataloguing, classification, Bibliographies, circulation, serials collections and even inter-library loans. Libraries like the Imo State Public Library Owerri should upload their bibliographic records to become part of the global resources and down load information as benefits. The utilization of ICTs in libraries has been found in all aspects of library operations: Acquisition, cataloguing, circulation, serials control are now automated with many library software's available in the market. In the light of the above Rana (2008) noted that ICT has brought unprecedented change and transformation to libraries and information services conventional library and information service (LIS) such as OPAC (Online public Access catalogue) user services, reference service, document delivery, interlibrary loan, audio visual services and customer relations can be provided more efficiently by using ICTs cost effectiveness faster and most up to date dissemination and end users involvement in the library and information services, (LIS) processes. The use of ICT in public libraries has its advantages especially in housekeeping functions such as compilation of accession list, maintaining library statistics, charging and discharging of books, compilation of overdue notices, reproduction of catalogue cards etc (Oni 2004).

Research Question 3:
What is the impact of ICT on the Acquisition operations of Imo State public library Owerri?
Table 3: Distribution of Mean score responses on the impact of ICT on Acquisition operations

	Impact of ICT on Acquisitions operations	No of respondents	SA	A	D	SD	$\overline{x}$	Stddev	Decision
a.	ICT enhances acquisition process	130	63	62	3	2	3.43	0.6218	Positive
b.	ICT has positively impacted our selection of library materials	130	64	60	6	-	3.44	o.5848	Positive
c.	ICT has positively impacted our ordering system	130	66	61	3	1	3.46	0.5861	Positive
d.	ICT has greatly eliminated the repetition in ordering of materials	130	48	72	10	-	3.29	0.6029	Positive
e.	ICT hastens the printing and production of order slip	130	53	63	13	1	3.29	0.5999	Positive
f.	ICT enhances the preparation of Accession list	130	69	57	4	1	3,47	0.5999	Positive
g.,	ICT helps us to keep records or track of books on order.	130	73	56	1	-	3.55	0.5143	Positive,
h.	ICT has enhanced the acquisition process	130	48	42	19	21	2.90	1.0671	Positive
	Grand mean						**2.99**		

Table 3 shows the impact of ICT on the Acquisition operations of the library. All the items on Table 3 had a higher response rate on agree than disagree which indicates a positive response to the questions. This is confirmed by the mean response scores recorded by the items which are above the expected mean of 2.5 and the standard deviation that ranges from 0.6218, 0.5848, 0.5861, 0.6029, 0.5999, 0.5999, 0.5143 to 1.0671. This therefore shows that all the items mentioned on Table 7 impact positively on acquisition operations of Imo State Public Library Owerri. Some of the acquisition operations that have received positive impact from ICT includes ordering of materials, acquisition process, selection of library materials, printing and production of order slip etc. This is in line with Madu (2000) and Oni (2004) who reports that the use of computer based acquisition has greatly eliminated all the problems associated with manual acquisition. Some of the acquisition operations where computer can be applied include: ordering of materials, acquisition processes, selection of materials, printing and production of ordership, etc.

Research Question 4
What are the impacts of ICT on the Cataloguing operations of Imo State Public Library, Owerri?
Table 4: Distribution of mean score response on the impact of ICT on cataloguing operations.

	Impact of ICT on cataloguing operation	No of respondents	SA	A	D	SD	$\overline{x}$	Stddev	Decision
a.	ICT has positively enhanced the use of cataloguing	130	61	60	6	3	3.38	0.6860	positive
b.	ICT helps to solve the problem of backing of cataloguing materials	130	62	57	11	0	3.92	0.6409	Positive
c.	ICT enhances the printing and multiple productions of Catalogue cards	130	61	55	12	2	3.33	0.7195	Positive
d.	ICT has made easy the classification of library materials	130	62	59	7	2	3.92	0.6647	Positive
e.	ICT has helps to provide up to date data base	130	67	58	4	1	3.47	0.5999	Positive
	Grand mean						3.42		

Table 4 shows the impact of ICT on cataloguing operations. All the items on Table 4 had a higher response rate on agree than disagree which indicates a higher positive response to the questions. This is confirmed by the mean response scores recorded by the items which are above the expected mean of 2.5 and the standard deviation that ranges from 0.6860, 0.6409, 0.7195, 0.6647 to 0.5996. This therefore shows that all the items mentioned on Table 8 impact positively on cataloguing operations in Imo State public library owerri. Some of these cataloguing operations include: cataloguing processes, reducing the problem of back log of uncatalogued materials; it has made easy the classification of library materials and has helped to provide up to date data base of the library. The findings of the agrees with Mason (2004) observation that libraries are a classic example of how automation has impacted on the traditional ways that work is done, particularly in cataloguing departments—changing how, and by whom, the cataloguing is done. Ajibero (2003) also notes that as a result of the impact of ICT on technical services, the roles of cataloguers have completely changed. Their roles now involve operations that have become integrated. He further asserted that cataloguers have become inter-dependent in their pursuit to provide bibliographic control and access. Supporting Oni (2004) opined that machine Readable catalogue (MARC) has enhanced the automation of cataloguing process and creates accessibility to the resources thus enabling users easy retrieval of materials.

Research Question 5

What is the impact of ICT on the circulation operations of Imo state Public Library Owerri.

Table 5: Distribution of mean score response on the impact of ICT on circulation services.

	Impact of ICT on circulation services	No of respondents	SA	A	D	SD	$\overline{x}$	Stddev	Decision
a.	ICT enhance charging of information materials	130	70	50	9	1	3.45	0.6602	positive
b.	ICT enhances re -charging of information materials	130	58	69	3	0	3.42	0.5408	positive
c.	ICT enhances generation of overdue notices	130	51	65	10	4	3.25	0.7294	Positive
d.	ICT improves calculation and payment of fines	130	53	59	8	10	3.19	0.8635	Positive
e.	ICT helps to dictate patrons of delinquency statutes	130	57	50	11	12	3.17	0.9329	Positive
f.	ICT helps to place books on hold.	130	58	55	17	0	3.32	0.6937	Positive
g.	ICT encourages and enhances generation of various library statistics	130	79	48	3	0	3.58	0.5397	positive
h.	ICT enables users to search for online catalogue	130	86	41	3	0	3.63	0.5283	Positive
	Grand mean					3.40			

Table 5 shows the impact of ICT on circulation services of the Imo State public library Owerri. All the items on Table 5 had a higher response rate on Agree than Disagree which indicates a positive response to the questions. This is confirmed by the mean response score recorded by the items which are above the expected mean of 2.5 and the standard deviation that ranges from 0.6602, 0.5408, 0.7294, 0.8635, 0.9329, 0.6937, 0.5397 to 0.5283.

This therefore shows that ICT has positive impact on circulation services of Imo State public library Owerri. Some of such areas in circulation where ICT has impacted positively include; charging out of information materials, discharging of information materials, generation of overdue notices, circulation and payment of fines, detection of delinquency status of patrons, placing books on hold, generation of various library statistics, searching of online catalogues and online registration of users. The findings of the confirms Oni's (2004) opinion that the use of computer in circulation section of the library helps to eliminate some of the repetitive nature of manual work thus facilitating the charging and discharging of books and producing overdue notices. Aina (1993) supported by saying that there is need to face the challenges of the new information age especially in computer training and education where a lot of skills can be acquired.

Research Question 6

What are the impacts of ICT on the serial operations of Imo State Public Library Owerri.

Table 6: Distribution of mean score responses on the impact of ICT on serials Operations.

Impact of ICT on serials Operation	No of respondents	SA	A	D	SD	$\bar{x}$	Stddev	Decision
a. It has enhanced indexing of serials materials in the library	130	76	45	5	4	3.48	0.7178	Positive
b. It has improved obstructing of periodicals	130	58	63	4	5	3.33	0.7213	Positive
c. It has enhanced the processing of serials materials	130	69	58	1	2	3.49	0.6003	Positive
d. It has enhanced the recording of serials in the library	130	72	53	4	1	3.50	0.6003	Positive
e. It has enhanced the selection of serials in the library	130	58	70	2	0	3.43	0.5274	Positive
f. It has enhanced subscription and control of serials publications	130	55	62	13	0	3.32	0.4496	Positive
g. It has helped in selective dissemination (SDI) of information	130	65	54	6	5	3.38	0.7498	Positive
h. It has helped to improve storage and retrieval of information	130	78	46	4	2	3.34	0.6318	Positive
Grand mean	3.4							

Table 6 shows the impact of ICT on serials operations of Imo state public library Owerri and the distribution of the mean score responses. All the items on Table 6 had a higher response rate on agree than disagree which indicates a positive response to the questions. This is confirmed by the mean response score recorded by the items which are above the expected mean of 2.5 and the standard deviation that ranges from 0.7178, 0.7213, 0.6003, 0.660 0.5274, 0.4496, 0.7498, to 0.6318. This therefore shows that ICT has positive impact on the serials operations of the library, some of such areas in the serials section where ICT has positively affected their services include; indexing of serials materials in the library, abstracting of periodicals, processing of serials publications, storage and retrieval record keeping in serials section. The finding is in line with Oni (2004) assertion that serials section handles all publications, issued in successive parts at regular and irregular intervals, and maintaining serials manually is cumbersome while the situation is totally different in a fully ICT system thereby enhancing the following; subscription control, information storage and retrieval which entails selective. Dissemination of information (SDI); user services and increased worker performance. In view of this ICT has impacted positively on the serials operations of Imo State public library.

Research Question 7

What are the problems that hinder effective application of ICT on the house keeping operations in Imo State Public Library, Owerri.

Table 7: Distribution of mean score responses on the problems that hinder effective use of ICT.

	Problems that hinder effective use of ICT	No of respondents	SA	A	D	SD	$\bar{x}$	Stddev	Decision
a.	Untrained personnel	130	81	42	3	4	3.53	0.6950	Positive
b.	Inadequate personnel	130	78	43	3	6	3.49	0.7598	Positive
c.	Unsteady power supply	130	85	42	2	1	3.62	0.5605	Positive
d.	Lack of well articulated and written policy on ICT.	130	61	53	15	1	3.33	0.7104	Positive
e.	Lack of good maintenance culture	130	65	61	2	2	3.45	0.6114	Positive
f.	High cost of ICT facility	130	73	46	10	1	3.47	0.6727	Positive
g.	Inadequate accommodation	130	59	55	11	5	3.29	0.7820	Positive
h.	Non availability of needed software's	130	58	61	9	2	3.35	0.6781	Positive
i.	Lack of technical know-how	130	60	53	9	3	3.31	0.7559	
	Grand Mean						3.4		

Table 7 shows the mean score response of the problems that hinder effective use of ICT services in library operations in Imo State Public Library Owerri.

All the items on Table 7 had a high response on agree than disagree which indicates a positive response to the questions. This is also confirmed by the mean response score recorded by the items which is above the expected mean of 2.5 and the standard deviation that ranges from 0.6950, 0.7598, 0.5605, 0.7104, 0.6114, 0.6727, 0.7820, 0, 6787 to 0.7559.

This therefore show that many of the respondents agree that all the problems mentioned on Table 11 hinder effective use of ICT in Imo state public library operations and services. Some of such problems include. Inadequate personnel, Epileptic power supply, lack of well articulated and written policy on ICT, lack of good maintenance culture, high cost of ICT facility, inadequate accommodation, non availability of needed software and lack of technical know-how. The result of this findings collaborated with Nwaigwe's (2005) view that lack of sufficient funding is another challenge to effective ICT operations in our libraries especially public libraries that are poorly funded. Omekwu (2001) and Oni (2004) agreed that many public library don't have internet literacy because of obvious lack of trained and efficient staff to handle the technology in public library, and even, where the ICT equipments are available it requires maintenance and the cost are high and the fund to purchase them are not available when needed.

4.2 Testing of Hypotheses
Hypotheses 1
$H_{:0:1}$: The mean rating scores of respondents on the impact of ICT on Acquisition Operations do not differ significantly at P<0.05

Table 8: ANOVA Table on the difference existing between the mean rating scores of respondents on the impact of ICT on Acquisition Operations

Source	DF	SS	MS	F	P
Factor	7	37.400	5.343	11.69	0.000
Error	1032	471.538	0.457		
Total	1039	508.938			

Analysis of Variance (ANOVA) was used to determine the differences in the mean score rating of respondents on the impact of ICT on Acquisition Operations. The ANOVA in Table 8 reports that there is a significant difference existing between the mean rating scores of respondents on the impact of ICT on Acquisition Operations as our p-value < 0.05 significance. The result accounts for a p-value of 0.000 with F-calculated of 11.69. We therefore reject the null hypothesis and conclude that the mean rating scores of respondents on the impact of ICT on Acquisition Operations do differ significantly at P<0.05. This is to say that the responses differ significantly at 95% confidence level.

Hypotheses 2
$H_{:0:2}$: The mean rating scores of respondents on the impact of ICT on cataloguing operation do not differ significantly at P<0.05

Table 9: ANOVA Table for ICT on cataloguing operation

Source	DF	SS	MS	F	P
Factor	4	1.292	0.323	0.73	0.569
Error	645	283.669	0.440		
Total	649	284.962			

Analysis of Variance (ANOVA) was used to determine the differences existing in the mean score rating of respondents on the impact of ICT on cataloguing operation. The ANOVA in Table 9 reports that there is no significant difference existing between the

mean rating scores of respondents on the impact of ICT on cataloguing operation as our p-value >0.05 significance. The result accounts a p-value of 0.569 with F-calculated of 0.73. We therefore accept the null hypothesis and conclude that the mean rating scores of respondents on the impact of ICT on cataloguing operation do not differ significantly at P<0.05. This is to say that the responses do not differ significantly at 95% confidence level.

Conclusion

From the analysis and discussion of findings, it is evident that Imo State Public Library is automated ICT has, positive impact on the operations and services of Imo state Public Library Owerri. The cataloguing operations and services of the cataloguing department of Imo State Public Library has been impacted positively by ICT. The operations and services of the circulation department have been positively impacted by ICT. The serials sections of Imo State Public Library have received positive impact from ICT.

The mean rating score on the problems that militate against effective use of ICT in Imo State Public Library Owerri is above the expected mean of 2.5. This indicates that the major problems hindering effective use of ICT include; inadequate personnel, untrained personnel, epileptic power supply, lack of ICT policy, lack of maintenance culture, High cost of ICT facilities, inadequate accommodation, non-availability of needed software and above all lack of technical know-how.

The mean rating scores of respondents on the impact of ICT on Acquisition Operations do differ significantly at P<0.05. This is to say that the responses differ significantly at 95% confidence level. The mean rating scores of respondents on the impact of ICT on cataloguing operation do not differ significantly at P<0.05. This is to say

that the responses do not differ significantly at 95% confidence level.

Recommendations

The study recommend that:

i.   ICT facilities are available in Imo State Library Owerri but efforts should be made for its maximum use. The researcher therefore recommends adequate and appropriate facilities to be acquired and proper utilization made of the available facilities for them to produce the needed result.

ii.   There are indigenous ICT manufacturing firms in Nigeria, Imo State Library authorities should make efforts to patronize these companies in order to supply needed spare parts to repair and maintain the equipment when spoilt.

iii.   In order to ensure adequate provision and maintenance of these ICT facilities adequate funding is recommended.

iv.   The researcher recommends a well-articulated, written functional ICT policy either at the state or national level to help boost ICT adoption and use in libraries.

v.   New library software's and computer gadgets are produced and manufactured regularly. Therefore there is need for constant training and retraining of staff by the library management to keep them abreast of these new developments in the library and information profession.

vi.   Finally the library staff and management should be educated on the benefits they stand to derive from the automation of library operations and functions.

The researcher strongly believes that if these recommendations are considered and implemented ICT usage will to a large extent yield positive impact in the library.

References

Adeniran, T. and Madu, E.C. (2000) *Uses and Preservation of Resources in Libraries and Information Centres.* I b a d a n : Odumatt Press; 14-16.

Adesoji, A. A. et al (2012) Impact of ICT on Cataloguing of Library Materials: Case studies of some selected University Libraries in South-West Nigeria. *American International Journal of Contemporary Research.* 2 (6)

Aguolu, C.C. and Aguolu I.E. (2002). *Libraries and Information Management in Nigeria.* Maiduguri: ED- Link Form Services.

Aina, L.O. (1993) The challenges of the emerging Market and the education of Training of information professional in Africa. *Journal of Librarianship and Information Science* 25(4), 197-201.

Ajibero, M.I. (2003) *Current Trends in Technical Services: The Role of ICT. Proceedings of Selected Papers of the Cataloguing, Classification and Indexing Section of NLA.* Lasisi, J.,

Anaeme, F.O. (2006) Information Communication Technology (ICT) Intervention in Library and Information Services. *Nigerian Library and Information Science Trend.* 4 (1&2): 27-36.

Eke, F. M. (2006) Information and Communication Technologies Awareness and use by Academic staff of Tertiary Institutions in Imo state. Nigerian Science and Information Science Trend. *Journal of the Nigerian Library Association Imo state Chapter Owerri.* Vol. 4 (1and 2) 22-32.

Godden, I.P (1981) *Library Technical Services, Operation and Management. 2nd edition.* New York: Academic Press.

Krubu, D. E. and Osawaru , K. E. (2011) The I m p a c t o f I n f o r m a t i o n a n d Communication Technology (ICT) in Nigerian University Library. *Library Philosophy and Practice. Retrieved from* http://unllib.unl.edu/LPP/on 20/11/2015.

Madu, E.C. and Aderiran, T.N. (2005) *Uses and Preservation of Resources in Libraries and Information Center* 2nd ed. Ibadan: Evi-Coleman Publication.

Mason, M.K. (2004). Automation: IT has Changed the face of Cataloguing forever, but has it really Deprofessionalized the work of Cataloguing Librarians? A v a i l a b l e a t http://www.moyak. com/researcher/resume/papers/clogmkm .html (accessed Feb.24, 2011)

Mohammed, Z. (1997), Funding Nigerian libraries and information centers: Challenges of the 21st century. *Paper presented at the 35th Nigerian Library Association Annual Conference/AGM,* Kaduna.

Nwaigwe, U.C. (2005) Utilization of Information Technology for Information service in Owerri Municipal Information C e n t e r s. *N i g e r i a n L i b r a r y a n d Information Science Trends: Journal of the Nigerian Library Association, Imo State Chapter*; 3 (1 & 2): 45-51.

Odusanya, O.K., Sonaike, S.E.A., Okegbola, E.O., Balogun, F., & Osinulu, L.F. (Eds.) Nigeria: *NLA Cataloguing, Classification and Indexing Section.* 1-10

Oghenetega, .L.U. Umeji, E.C. and Obue, C.N. (2014) *Challenges Associated with*

the use of ICT Facilities in Public Libraries of Nigeria. Retrieved from: http://www.IIste .org. on 10/10/2015. 4 (22).

Oghenetega, L .U & Ugulu, L. (2014). Sustaining Lifelong Education through Public

Library Services in the Electronic Age. Retrieved from http://www iiste.org. 5(22) 22-27.

Omekwu, C.O. (2001) "Managing Information and Technology in the Knowledge Age: Pace setting Agenda for Librarians of Developing Economies. In: *Libraries and Librarians. Making a Difference in the Knowledge Age: A compendium of Papers Presented at the 39th National Conference and GM of Nigerian Library Association. 40-50.*

Oni, F.A. (2004) Enhancing the Performance of Library Operations through Appropriate Information Technology, In: *Madu, .C. (ed.). Modern Libraries and Information Centres in Developing Countries. Ibadan: Evi-Coleman Publications*; 95-106.

Patricia, A.L.(2000). The older Adult and Public Library Computer Technology: Pilot study in a Canadian setting. *Journal of Library and Information Science*. 50 (20), 225-234.

Qiang, C.P.A. (2003) *Contributions of Information Technologies to Growth*. World Book Working Paper , No. 24,1,

Rana, H. K. (2008) *Impact of Information and Communication Technology on Academic Libraries in Punjab: InTech*.

Strater, (1998) A Reality Basis for Management Information Decisions. *Public Administrative Review*. 39 (2), 176-179.