PROCEDURES AND CHALLENGES OF RETROSPECTIVE CATALOGUE CONVERSION IN TWO NIGERIAN UNIVERSITY LIBRARIES: A COMPARATIVE STUDY OF FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA, LIBRARY AND UNIVERSITY OF JOS, LIBRARY

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Abstract
This study examined the procedures and challenges of retrospective Catalogue Conversion in Federal University of Technology, Minna, Library and University of Jos, Library. The investigation was based on the data gathered through questionnaire to elicit information on the reasons for the retrospective conversion, approaches adopted for the retrospective conversion, procedures followed for retrospective conversion, techniques adopted for retrospective conversion, hardware and software used in retrospective conversion, human resources requirements and challenges encountered in the process of retrospective conversion in the two university libraries. A descriptive survey research method was adopted for this study. A total of twenty-four (24) copies of the questionnaire were distributed by the researchers and all were completed, returned and used for the study. The data gathered from the study were analysed using simple percentages. Based on the findings, the study concluded that there is need for training and re-training of staff from time to time. The study recommended that management of the universities should provide stand by electricity generator and upgrading of Internet network services among other things in the two university libraries for effective and efficient service delivery.

Key words: Catalogue, Challenges, Libraries, Procedures, Retrospective Conversion, Universities

Introduction

Retrospective catalogue conversion is a process of converting the bibliographic record or information of a library collections from traditional manual system or non-machine readable form to machine readable form or computerized system. Ihejirika and Ekere (2016) asserted that the introduction of computers into library activities has been a turning point that suggest for change from the traditional cataloguing process and output. There is need therefore for library catalogues to provide access to more content and to offer significantly enhanced functionality based on the features of popular search engines. They further stated that more users want, expect, and pursue full text, in increasing numbers, they look beyond the catalogue when searching for electronic journals, databases and websites. Considering the ineffectiveness, delay and inadequacy of the existing library manual system. Most of the academic libraries in Nigeria are moving from traditional manual library system to automated system as a means of coping with massive literature output and huge demand on their services in this era of information boom.

ALA Glossary of Library and Information Science (2013) defined retrospective conversion as the process of converting to a machine-readable form the records in a manual or non-machine readable file and that are not converted through day to day processing. Subsequently, Harrod's Librarians' Glossary and Reference Book (2009) defined retrospective conversion as a partial or complete conversion of an existing catalogue into machine-readable form as opposed to converting records created currently. The word "Retrospective" indicates that the process is only for already existing records, and the meaning of the word "Conversion" refers to the form and format of the records changing something from one form to another. Thus, retrospective conversion in library and information center means "changing already existing catalogue from existing traditional form to a machine-readable form (Dabas, 2004). But in the case of Federal University of Technology library, Minna and University of Jos, library "physical books" were used via the generation of worksheet in order to avoid duplication and for the purpose of accuracy.

Historical Background of Federal University of Technology, Minna Library (FUTML) Automation Process

Federal University of Technology, Minna library (FUTML) was established in 1983 and its automation process started as far back as 1996. Then, the conversion was done using TINLIB software and later changed to GLASS software which resulted into problem of compatibility. Thereafter, by the year 2000 (millennium year) all the systems crashed and that put an end to the process. In 2016, three (3) professional cataloguers and one (1) system analyst were sent to University of Jos for the retrospective conversion (RETCON) training where the exercise was already ongoing using Koha software. Other human resources used for the project were trained locally by the team that went to Jos. Thereafter, library automation implementation committee was formally set up at the Federal University of Technology, Minna library which was headed by the Head of Technical Services Division. The library also uses Koha software for the project. At the stage of the RETCON exercise at the FUTML, several options were considered. Among these were: (a) to engage professionals and NYSC members (b) to derive records from external databases and (c) in-house reconversion. However, a combination of these three options were chosen.

Historical Background of University of Jos Library (UJL) Automation Process
University of Jos library was established in 1972 when it was a campus of University of Ibadan. In 1975, University of Jos had her autonomy as a full fledge University. University of Jos library started her retrospective conversion in 2005. The library has a support from Carnegie foundation for the project and sent some staff to overseas for the retrospective conversion training and other staff were trained locally. The library used Koha software for the project. The OPAC was launched in 2010. At the time of RETCON exercise at UJL, several options were considered. Among these were: (a) to engage professionals, para-professionals and NYSC members (b) to derive records from external databases and (c) in-house conversion. However, a combination of these three options were also chosen.

Implementation of RETCON at FUTML and UJL
The implementation of the FUTML and UJL RETCON processes was successful and involved the following steps: (a) Planning process of RETCON (b) Evaluation and selection of RETCON approaches, procedures and techniques (c) Evaluation and selection of software and hardware (d) Assessment of human resources and financial implications.

Koha is the first Open Source Integrated Library System (ILS), early developed in 1999 in New Zealand by Katipo Communications Limited and first implemented in January, year 2000 for Horowhenua Library Trust and it is now being used worldwide. Later on for Support for the cataloguing and search standards, MARC and Z39.50 was annexed in 2002. Koha development was steered by a growing community of libraries collaborating to achieved their technological objectives in library functions and it is used around the world in libraries of all dimensions. Koha is a genuine enterprise class Integrated Library System (ILS) that possess a comprehensive functionality both basic and advanced options. Koha includes modules for acquisition, circulation, cataloguing, serials, patron management, reserves, branch relationship and reports etc. Koha fully automate all the functions and workflow of a particular library.

Statement of the Problem
In spite of the fact that Federal University of Technology Library, Minna and University of Jos, Library are now moving from traditional manual library system to automated system as a means of coping with massive literature output and huge demand on their services by the clienteles in this era of information boom. There is still need to examine the various procedures used and challenges encountered during retrospective conversion and then compare it with each other so as to identify the better alternative way for the benefit of those Nigerian libraries who are yet to automate their services and hope to do so in the nearest future. The various challenges encountered during the process is a gap in knowledge. This study is therefore undertaken to fill this gap. This has become necessary because no study of this kind has been carried out in Fedearl University of Technology Minna and University of Jos.

Objectives of the Study

The objectives of this study are to:

1. examine the reasons for the retrospective conversion in the two university libraries
2. determine the approaches/processes adopted for retrospective conversion in the two university libraries
3. identify the procedures followed for the retrospective conversion in the two university libraries.
4. ascertain the techniques adopted for retrospective conversion in the two university libraries
5. determine the hardware and software that were used in retrospective conversion in the two university libraries
6. ascertain the human resources requirements used for the retrospective conversion in the two university libraries
7. find out the challenges encountered in the process of retrospective conversion in the two university libraries.

Research Questions

This study would provide answers to the following research questions:

1. What are the reasons for the retrospective conversion in the two university libraries?
2. What are the approaches or processes adopted for the retrospective conversion in the two university libraries?
3. What are the procedures followed for retrospective conversion in the two university libraries?
4. What are the techniques adopted for retrospective conversion in the two university libraries?
5. What are the hardware and software that were used for retrospective conversion in the two university libraries?
6. What are the human resources requirements for retrospective conversion in the two university libraries?
7. What are the challenges encountered in the process of retrospective conversion in the two university libraries?

Literature Review

The retrospective conversion of library collections from non-machine-readable form to machine-readable form is a pre-requisite for implementing an automated system. This database would become the foundation for other library activities such as online public access catalogue (OPAC), circulation, acquisition, catalogue maintenance, resource sharing, etc. These records provide the means of generating statistics and other information that is needed to improve the existing services and introduction of new one. Oketunji (cited in Okoroma, 2010) states that in choosing an automated library system the library should do a need analysis so as to review the existing system; its strengths and weakness. It has however been identified that retrospective

catalogue conversion of library system to computerized or automated system is of tremendous benefits both to the users and the library staff.

Some of the advantages as outlined by Tedd (cited in Okoroma, 2010) include provision of online access, capacity to easily access more information via the online, saves time and cost, and makes for more accurate completion of tasks or processes. In a related opinion, Nwalo (2003) asserted that computerization of libraries in Africa will permit the acquisition and use of literature on Compact Disc Read-Only Memory (CD-ROM) which has huge advantage both in terms of cost and durability. It collapses time, space as well as reduces the incidence of mutilation, defacing and theft of library materials. Lang (2007) observed that cataloguers use the Internet as a device for locating cataloguing documentation and other information. She further opined that the main strengths of electronic cataloguing over traditional cataloguing are its ease of use and its ability to reduce the amount of time required to access information.

Collectively, automation enhances various operations and services in the library such as acquisition, serials, cataloguing, circulation and information networks as well as library management (Edoka cited in Okoroma, 2010). Manjunath (2004) stated that automation eliminates cumbersome job of printing the cards, enhance simultaneous access to the same database as well as quick and remote access to information on the network. In views of the above, Adeyemi (2001) opined that there are two basic objectives of automation: to enhance efficiency and effectiveness in what is already done and to offer more services, which could not be achieved manually. The procedures in the library are run in with some techniques and strides. Dabas (2004) established some techniques of retrospective conversion to include: i) In-House Conversion: in in-house conversion, the conversion is completed by the existing library staff that leads to high quality and control, as the staff understands the users' needs, quality requirements, and the objectives of the conversion well; ii) Outsourced In-House Conversion: in outsourced in-house conversion, the conversion is completed by outside contracted persons within the library premises; iii) Outsourced Off-Site Conversion: in outsourced off-site conversion, the process is completed by an agency away from the library or information center. In the same vein, Oni (2009) also identified three main options for retrospective catalogue conversion as follows: Retrospective Catalogue Conversion by an Outside Agency- letting an outside bureau take care of such a comprehensive task seems to be attractive to some librarians; Deriving record from External Databases- this option uses existing databases from outside the library. An example is the employment of the database of a library which has a similar collection profile. A copy of such a database can be used as a basis for one's own data-conversion; In-house Conversion- this option is perhaps the best one available to libraries in this part of the globe.

Furthermore, the following steps are adopted for retrospective conversion according to Ola (cited in Ihejirika and Ekere, 2016) stated that Keying manually: - is the most accurate way of getting libraries database into machine readable form, but the process is time consuming and needs both properly trained people as well as expert's supervision; Optical character recognition: - this is synonymous to scanning. It requires expensive equipment and properly formatted cards. The risk involve with the use of this equipment is that just like any machine, they cannot make sensible decisions therefore records created by a scanner may not be properly indexed; Resource database: - This involves a library approaching resource databases when engaging in

retrospective catalogue conversion. This system of Retrospective Catalogue Conversion involves the matching of records through the use of International Standard Book Number (ISBN) or Library of Congress Classification Number (LCCN) or uses other bibliographic particulars as authors, titles, publication data and other data elements to import item at hand or similar title into the database of the library concerned; Editing: This has to do with ensuring that converted records are properly edited to ensure that converted records are consistent with local practice. In the same vein, Dabas (2004) observed that the three basic steps in retrospective conversion are filling of data input sheets/worksheets, entering data into software and editing the database. There are certain tools required to carry out this steps and methods in retrospective conversion.

According to Ajala (cited in Okoroma, 2010) opined that the most important decision in automation are the hardware and the software requirement. In the same vein Gibbarelli (cited in Ihejirika and Ekere, 2016) recommended that an automation exercise should start with the acquisition of hardware and software. Dabas (2004) opined that retrospective conversion is irritating primarily because of the following facts: with traditional techniques, retrospective conversion is very expensive; typically, it is multi-year project; and since it is often considered a lackluster or boring subject, the topic generates little managerial interest and involvement. He states further that despite the unfortunate reputation retrospective conversion has acquired, its importance cannot be overemphasized. The database resulting from a retrospective conversion project may long outlive the first, second, or third generation of automated systems installed in a library. Over the years, it can be very difficult to try to live with a poor database that is the result of budgetary or staff shortages.

For retrospective catalogue conversion to be viable, the service of library staff and other competent hands is needed as one of the resource for retrospective catalogue conversion. These resources are expected to have basic knowledge of traditional cataloguing skills and ICT skills. Nwachukwu (cited in Ihejirika and Ekere, 2016) opined that in the modern age of information explosion, no library can satisfy client demand with the manual library process. This he contends, is especially the case of university libraries where speed and versatility in making their bibliographic searches, as such computer skill among librarians should be seen as a valuable prerequisite that would help to facilitate library computerization efforts and functions in order to meet the demand of ever-growing clients. In view of the above, Csapo (2001) outlined some of the basic computer skills needed in a work place as: using the computer and managing files, word processing, spreadsheet, database, internet and e-mail. Manaf et. al., (2009) grouped cataloguing and classification skills to include: Basic knowledge of cataloguing tools, Working knowledge of cataloguing tools, Library of Congress Rule interpretations, knowledge of MARC format, Library of Congress Classification, Dewey Decimal Classification, Library of Congress Subject Headings as well as Knowledge of relevant national and international cataloguing standards.

The retrospective catalogue conversion exercise is associated with some challenges that pose to its success. Dabas (2004) states that retrospective conversion is irritating primarily because of the following facts: with traditional techniques, retrospective conversion is very expensive; typically, it is multi-year project; and since it is often considered a lackluster or boring subject, the topic generates little managerial interest and involvement. He states further that despite the unfortunate

reputation retrospective conversion has acquired, its importance cannot be overemphasized. The database resulting from a retrospective conversion project may long outlive the first, second, or third generation of automated systems installed in a library. Over the years, it can be very difficult to try to live with a poor database that is the result of budgetary or staff shortages. In the same vein. Okoroma (2010) asserted that the major problems that can face libraries as they become progressively involved with the use of technologies may be summarized as follows: General inadequacy in the level of relevant infrastructure, particularly Telecommunication facilities and human resources supply; A large exploitative local computer market is unsatisfactory after sales in maintenance and support; An adequate pool of relevant technical staff and problems of recruitment and retention; The potential of library staff resistance to the introduction of computer technology; The potential of user resistance and failure to adapt to the use of on-line information; The database conversion problems and Frequent changes in technology. There are minimal problems of power failure, internet downtime and slow cyber-speed. These do all act as constraints to using the online cataloguing process. However minimal the outage may be, it translates into internet downtime which in the long term affects productivity and staff output.

In addition, the bandwidth of the network connection within the universities is low compared to the number of users of the network, and hence there can be a slow cyber-speed, which obviously impedes the speed at which a web page can be opened (Adeleke and Olorunsola, 2007). The aforementioned challenges can be resolve with prudent dimensions. In view of the above. Byrd et. al. (2006) recommends some strategic directions cataloguing departments can cope with the changes in the library cataloguing arrangement in the following points: Form new partnerships between cataloging departments and other units, both internal and external to the libraries; Actively seek ways to utilize existing cataloguers' expertise by expanding their work in other forms of metadata and Continue to review internal cataloging operations with the goal of realizing improved efficiency. Vellucci (cited in Ihejirika and Ekere, 2016) stated that the skills and understanding of professional cataloguers enables them to design and restructure bibliographic tools in response to evolving needs, and renders cataloguer's indispensable in the changing information environment. They should be educated to work in the digital arena. She observed that instead of being trained in a single cataloging code and format, they should be skilled in applying the appropriate metadata format to a particular situation. Other strategies that may suffice include provision of adequate fund for the RCC project, proper planning, and provision of alternative power supply and outsourcing of the project in cases when adequate expertise is not available in the library.

Methodology

A descriptive survey research method was adopted for this study. Agbo and Asogwa (cited in Abubakar, 2013) asserted that a survey method is one in which a group of people or items are studied by collecting and analysing data from only a few people or items considered to be representation of the entire group. Twelve (12) operational staff were selected randomly from each university libraries i.e. FUTML and UJL giving a total of twenty-four (24) respondents in the study. Questionnaire was the instrument used for collecting required data. A total of twenty-four (24) copies of the questionnaire were distributed by the researchers and all were completed,

returned and used for the study. The data gathered from the study were analysed using simple percentages.

Results and Discussion

Demographic Information

Table 1: Distribution of Respondents by Educational Qualifications

Educational Qualifications	FUTML		UJL		TOTAL
	F	**%**	**F**	**%**	
Ph.D	-	0	-	0	0
MLS or M.TECH.	5	41.7	5	41.7	10
BLS or B.TECH.	6	50	1	8.3	7
DLS or HND	1	8.3	6	50	7
TOTAL	**12**	**100**	**12**	**100**	**24**

Key: FUTML= Federal University of Technology, Minna, Library
UJL= University of Jos, Library

Table 1 reveals that none of the respondents in the two universities possessed Ph.D. degree. 5 respondents representing 41.7% in each of the university possessed MLS or M.Tech. degree. 6 respondents representing 50% in Federal University of Technology, Minna, Library possessed BLS or B.Tech. degree while only 1 respondent representing 8.3% in University of Jos, Library possessed BLS or B.Tech. degree. Only 1 respondent representing 8.3% in Federal University of Technology, Minna, Library possessed DLS or HND while 6 respondents representing 50% in University of Jos, Library possessed DLS or HND qualifications.

Table 2: Distribution of Respondents by Sex

Sex	FUTML		UJL		TOTAL
	F	**%**	**F**	**%**	
Male	8	66.7	6	50	14
Female	4	33.3	6	50	10
TOTAL	**12**	**100**	**12**	**100**	**24**

Key: FUTML= Federal University of Technology, Minna, Library
UJL= University of Jos, Library

Table 2 reveals that 8 respondents representing 66.7% in Federal University of Technology, Minna, Library were male compare to University of Jos, Library where 6 respondents representing 50% were male. For the female, 4 respondents representing 33.3% in Federal University of Technology, Minna, Library were female compare to University of Jos, Library where 6 respondents representing 50% were also female.

Background Information on the Libraries

Table 3: Total Collection Size and Period of Time Taken in Retrospective Conversion

	FUTML	UJL
Total Collection Size	37,219	184,102
Time Started	2016/2017 Session	2005/2006 Session
Time Ended	Still on	Still on

Key: FUTML= Federal University of Technology, Minna, Library
UJL= University of Jos, Library

Table 3 reveals that Federal University of Technology, Minna, Library total collection size as at the time of study was 37,219 while that of University of Jos, Library was 184,102. Table 3 further reveals that Federal University of Technology, Minna, Library retrospective conversion started in 2016/2017 academic session while that of University of Jos, Library started in 2005/2006 academic session. The conversion processes are still on in the two libraries as at the time of study for the fact that retrospective conversion is a continuous process.

Table 4: Reasons for the Retrospective Conversion

		FUTML				UJL				Total	%
S/No.	Reasons	Yes	%	No	%	Yes	%	No	%		
1.	To improve the services of the library	12	100	-	0	12	100	-	0	24	100
2.	To create a database for the system	11	91.7	1	8.3	12	100	-	0	24	100
3.	To maximize access to the collections	11	91.7	1	8.3	11	91.7	1	8.3	24	100
4.	To make money	1	8.3	11	91.7	-	0	12	100	24	100
5.	To reduce time for searching for a document	12	100	-	0	10	83.3	2	16.7	24	100
6.	To just make name	1	8.3	11	91.7	-	0	12	100	24	100

Key: FUTML= Federal University of Technology, Minna, Library
UJL= University of Jos, Library

Table 4 reveals that all, 100% of the respondents in FUTML agreed that reasons for conversion was to improve the services of the library and to reduce time for searching for a document. To create a database for the system and to maximize access to the collections with 91.7% respectively. While in UJL 100% of the respondents agreed that reasons for the conversion was to improve the services of the library and to create a database for the system. To maximize access to the collections and to reduce time for searching for a document with 91.7% and 83.3% respectively for the two universities. Comparatively, the two university libraries have the same reasons for the retrospective conversion exercise. Only 8.5% in FUTML agrees that the conversion was to make money and name while 0% in UJL agrees that the conversion was to make money and name.

Table 5: Approaches/Processes Adopted for the Retrospective Conversion

		FUTML				UJL				Total	%
S/No.	Approaches/Processes	Yes	%	No	%	Yes	%	No	%		
1.	In-house retrospective conversion only	12	100	-	0	2	16.7	10	83.3	24	100
2.	Out -Sourcing (i.e. using vendors and/or agencies only)	1	8.3	11	91.7	1	8.3	11	91.7	24	100
3.	Shared retrospective conversion	1	8.3	11	91.7	11	91.7	1	8.3	24	100

Key: FUTML= Federal University of Technology, Minna, Library
UJL= University of Jos, Library

Table 5 reveals that all, 100% of the respondents in FUTML indicate in-house Retrospective conversion as the only approach that was used. While in UJL 91.7% of the respondents indicate shared retrospective conversion approach. This may be to the fact that UJL got support from foreign educational agencies during the process as it was not so in FUTML. Comparatively, the approaches adopted in the two university libraries were not the same.

Table 6: Procedures Followed for the Retrospective Conversion

		FUTML				UJL				Total	%
S/No.	Procedures	Yes	%	No	%	Yes	%	No	%		
1.	Books be move to cataloguing unit	12	100	-	0	12	100	-	0	24	100
2.	Generation of data into the worksheet/input sheet	12	100	-	0	12	100	-	0	24	100
3.	Entering of data into the system	12	100	-	0	12	100	-	0	24	100
4.	Catalogue card production	4	33.3	8	66.7	12	100	-	0	24	100
5.	Supervision of quality work schedule	11	91.7	1	8.3	12	100	-	0	24	100

Key: FUTML=Federal University of Technology, Minna, Library
UJL= University of Jos, Library

Table 6 reveals that all, 100% of the respondents in FUTML agreed that Books were moved to cataloguing unit, data were generated into the worksheet and data were entered into the system during the conversion exercise. Catalogue card production using computer and supervision of quality work schedule with 33.3% and 91.7% respectively. While in UJL 100% of the respondents agreed that all the procedures were followed during the conversion exercise. Comparatively, the two university libraries followed the same procedures during the conversion except catalogue card production using computer with least percentage in FUTML. This is because computer catalogue card production is yet to start in FUTML as at the time of the study.

Table 7: Techniques Adopted for the Retrospective Conversion

		FUTML				UJL				Total	%
S/No.	Techniques	Yes	%	No	%	Yes	%	No	%		
1.	Keying manually only	1	8.3	11	91.7	1	8.3	11	91.7	24	100
2.	Resources database only	1	8.3	11	91.7	2	16.7	10	83.3	24	100
3.	Keying manually and resources database	12	100	-	0	12	100	-	0	24	100

Key: FUTML=Federal University of Technology, Minna, Library
UJL= University of Jos, Library

Table 7 reveals that all, 100% of the respondents in FUTML indicate that keying manually and resources database was the technique adopted for the retrospective conversion exercise. While in UJL 100% of the respondents also indicate that keying manually and resources database was the technique adopted for the retrospective exercise. Comparatively, the two university libraries adopted the technique for the retrospective conversion exercise.

Table 8: Hardware Requirements for the Retrospective Conversion

S/No.	Hardware	FUTML				UJL				Total	%
		Yes	%	No	%	Yes	%	No	%		
1.	Desktop computers	12	100	-	0	11	91.7	1	8.3	24	100
2.	Laptop computers	12	100	-	0	10	83.3	2	16.7	24	100
3.	Barcode scanners/readers	6	50	6	50	12	100	-	0	24	100
4.	Barcode printers or other printers	12	100	-	0	10	83.3	2	16.7	24	100

Key: FUTML=Federal University of Technology, Minna, Library
UJL= University of Jos, Library

Table 8 reveals that all, 100% of the respondents in FUTML indicate that hardware were adequately available except barcode scanners with 50%. While in UJL 100% of the respondents indicate that barcode scanners were adequately available, laptop computers and barcode printers with 83.3% availability and desktop computers with 91.7% availability respectively. Comparatively, hardware was adequately available in the two university libraries except barcode scanners that were available in small quantity in FUTML.

Table 9: Software Used for the Retrospective Conversion

S/No.	Software	FUTML				UJL				Total	%
		Yes	%	No	%	Yes	%	No	%		
1.	Green	-	0	12	100	-	0	12	100	24	100
2.	Koha	12	100	-	0	12	100	-	0	24	100
3.	Alexandria	-	0	12	100	-	0	12	100	24	100
4.	Library world	-	0	12	100	-	0	12	100	24	100
5.	Polars	-	0	12	100	-	0	12	100	24	100

Key: FUTML=Federal University of Technology, Minna, Library
UJL= University of Jos, Library

Table 9 reveals that all, 100% of the respondents in FUTML indicate that Koha software was the only software that was used for the conversion. While in UJL 100% of the respondents also indicate that Koha software was the only software that was used for the conversion exercise. Comparatively, the two university libraries used the same software for the conversion exercise.

Table 10: Human Resources Used for the Retrospective Conversion

S/No.	Human Resources	FUTML				UJL				Total	%
		Yes	%	No	%	Yes	%	No	%		
1.	Professionals	12	100	-	0	12	100	-	0	24	100
2.	Para-professionals	7	58.3	5	41.7	12	100	-	0	24	100
3.	Non-professionals	-	0	12	100	4	33.3	8	66.7	24	100
4.	NYSC Members	12	100	-	0	7	58.3	5	41.7	24	100

Key: FUTML=Federal University of Technology, Minna, Library
UJL= University of Jos, Library

Table 10 reveals that all, 100% of the respondents in FUTML indicate professionals and NYSC members and 58.3% indicate paraprofessionals. While in UJL 100% of the respondents indicate professionals and para-professionals, NYSC members with 58.3% and non-professionals with 33.3%. Comparatively, the two university libraries engaged all the human resources except FUTML that did not engage non-professionals in the exercise.

Table 11: Challenges Encountered in the Process of Retrospective Conversion

S/No.	Challenges	FUTML				UJL				Total	%
		Yes	%	No	%	Yes	%	No	%		
1.	Lack of skilled manpower	5	41.7	7	58.3	6	50	6	50	24	100
2.	Epileptic power supply	10	83.3	2	16.7	9	75	3	25	24	100
3.	Barcode numbers generation	6	50	6	50	1	8.3	11	91.7	24	100
4.	Hardware inefficiency	5	41.7	7	58.3	6	50	6	50	24	100
5.	Poor network service	9	75	3	25	11	91.7	1	8.3	24	100
6.	Lack of conducive working environment	10	83.3	2	16.7	5	41.7	7	58.3	24	100
7.	Administrative bureaucracy	5	41.7	7	58.3	5	41.7	7	58.3	24	100

Key: FUTML=Federal University of Technology, Minna, Library
UJL= University of Jos, Library

Table 11 reveals that majority, 83.3% of the respondents in FUTML indicate epileptic power supply and lack of conducive working environment as the major challenges encountered during the conversion exercise. Barcode numbers generation and poor network service with 50% and 75% respectively. While in UJL majority, 91.7% and 75% of the respondents indicate poor network service and epileptic power supply as the major challenges encountered during the conversion exercise. Lack of skilled manpower and hardware inefficiency with both 50%. Comparatively, the two university libraries encountered similar challenges such as epileptic power supply and poor network service. Only FUTML encountered challenges of barcode numbers generation while only UJL encountered challenges of lack of skilled manpower.

Discussion

The findings reveal that majority of the respondents agreed with the following reasons for the retrospective conversion, these include: to improve the services of the library; to create a database for the system; to maximize access to the collections and to reduce time for searching for a document. On the other hand, majority of the respondents disagreed with the statements that the reasons for the retrospective conversion was to make money and make name. This

finding is similar to that of Manjunath (2004) who states that automation eliminates cumbersome job of printing the cards, enhance simultaneous access to the same database as well as quick and remote access to information on the network. Similarly, this finding agree with (Edoka cited in Okoroma, 2010) who states that automation enhances various operations and services in the library such as acquisition, serials, cataloguing, circulation and information networks as well as library management. This finding also agree with Lang (2007) who observed that cataloguers use the Internet as a device for locating cataloguing documentation and other information. Lang (2007) further opined that the main strengths of electronic cataloguing over traditional cataloguing are its ease of use and its ability to reduce the amount of time required to access information. Collectively, automation enhances various operations and services in the library such as acquisition, serials, cataloguing, circulation and information networks as well as library management.

The study reveals that majority of the respondents in FUTML indicate in-house retrospective conversion as the only approach that was used for the conversion while majority of the respondents in UJL indicate using shared retrospective conversion approach. This may be to the fact that UJL got support from foreign donor agencies during the process as it was not so in FUTML. This finding agree with Dabas (2004) who established some approaches of retrospective conversion to include: i) In-House Conversion: in in-house conversion, the conversion is completed by the existing library staff that leads to high quality and control, as the staff understands the users' needs, quality requirements, and the objectives of the conversion well; ii) Outsourced In-House Conversion: in outsourced in-house conversion, the conversion is completed by outside contracted persons within the library premises; iii) Outsourced Off-Site Conversion: in outsourced off-site conversion, the process is completed by an agency away from the library or information center. Similarly, the finding also agrees with Ola (2000) who asserted that in-house retrospective conversion involves applying all the necessary tools for the exercise using the staff and materials on ground internally. Out-sourced conversion involves using vendors and/or agencies such as Saztec Europe LTD, OCCC Europe, North-West data systems, Ebsco, the periodicals subscription agents etc. Shared retro-conversion is a situation where the two options identified above are adopted. Some part of the records can be sent to agencies to handle while the remaining records can be handled in-house by staff.

The study reveals that majority of the respondents in the two university libraries agreed that the following procedures were followed during conversion. These include: Books were moved to cataloguing unit; data were generated into the worksheet; data were entered into the system and supervision of quality work schedule was carried out and catalogue card production using computer was only done in UJL. On the other hand, Majority of the respondents in FUTML disagreed with catalogue card production using computer. This is because computer catalogue card production is yet to start in FUTML as at the time of the study. This finding agree with Ola (2000) who suggested that proper planning and procedure are imperative in retrospective conversion, these include the focus of the exercise, the way to go about it, to identify a team of competent staff, to make funds available; to weigh and evaluate different options of retrospective conversion, to make management responsible for monitoring the progress made; to ensure that

moderate marginal latitude is given to accommodate mistakes or errors among other considerations.

The study reveals that majority of the respondents in the two university libraries indicate that keying manually and resources database was the technique used for the conversion. This finding agree with Ola (2000) cited in Okoroma (2010) who states that keying manually is the most accurate way of getting libraries database into machine readable form, but the process is time consuming and needs both properly trained people as well as experts and regular supervision. Optical character recognition (OCR) is similar to scanning which requires expensive equipment and properly formatted cards. The danger involve with the use of this equipment is that just like any machine, they cannot make sensible decisions therefore records created by a scanner may not be properly indexed but in case of the barcode numbers, it is the most appropriate for capturing the numbers into the system. Resource database involves a library approaching resource databases when engaging in retrospective conversion. This system of retrospective conversion involves the matching of records via the use of International Standard Book Number (ISBN) or Library of Congress Control Number (LCCN) or uses other bibliographic particulars such as authors, titles, barcode number. publication data and other data elements to search for the item in other libraries database.

The study reveals that majority of the respondents in FUTML indicate that hardware were adequately available except barcode scanners that were available in small quantity. In UJL majority of the respondents indicate that all the hardware was adequately available for the retrospective conversion process. This finding agree with Ajala (cited in Okoroma, 2010) who asserted that the most important decision in automation are the hardware and the software requirement, and which of software development and use of software packages should be adopted in the automation process. Similarly, this study also agrees with Gibbarelli (cited in Ihejirika and Ekere, 2016) who recommended that an automation exercise should start with the acquisition of hardware and software.

The study reveals that majority of the respondents in the two university libraries indicate that Koha software was the only software used for the conversion process. This finding agrees with Ajala (cited in Okoroma, 2010) who asserted that the most important decision in automation are the hardware and the software requirement, and which of software development and use of software packages should be adopted in the automation process. Similarly, this study also agrees with Gibbarelli (cited in Iherijika and Ekere, 2016) who recommended that an automation exercise should start with the acquisition of hardware and software.

The study reveals that majority of the respondents in FUTML indicate that professionals, para-professionals and NYSC members partook in the conversion process. While in UJL majority of the respondents indicate that all the human resources listed partook in the conversion exercise.

The study reveals that majority of the respondents in FUTML indicate that the major challenges encountered in the conversion process include: epileptic power supply, barcode numbers generation, poor network service and lack of conducive working environment. While in UJL majority of the respondents indicate that the major challenges encountered in the conversion process include: lack of skilled manpower, epileptic power supply, hardware inefficiency and poor network service. This study agrees with Okoroma (2010) who asserted that the major problems that can face libraries as they become progressively involved with the use of technologies may be summarized as follows: General inadequacy in the level of relevant infrastructure, particularly Telecommunication facilities and human resources supply; A large exploitative local computer market is unsatisfactory after sales in maintenance and support; An adequate pool of relevant technical staff and problems of recruitment and retention; The potential of library staff resistance to the introduction of computer technology; The potential of user resistance and failure to adapt to the use of on-line information; The database conversion problems and Frequent changes in technology. There are minimal problems of power failure, internet downtime and slow cyber-speed. These do all act as constraints to using the online cataloguing process. Similarly, this finding also agrees with Dabas (2004) who states that retrospective conversion is irritating primarily because of the following facts: with traditional techniques, retrospective conversion is very expensive; typically, it is multi-year project; and since it is often considered a lackluster or boring subject, the topic generates little managerial interest and involvement. He states further that despite the unfortunate reputation retrospective conversion has acquired, its importance cannot be overemphasized. The database resulting from a retrospective conversion project may long outlive the first, second, or third generation of automated systems installed in a library. Over the years, it can be very difficult to try to live with a poor database that is the result of budgetary or staff shortages.

Conclusion
From the findings of the study, it could be deduced that Federal University of Technology, Minna, library and University of Jos, library were able to have a successful retrospective conversion and which is still on-going. In comparison, the two university libraries have the same reasons for the retrospective conversion, used similar approach, procedures, technique, hardware, software and human resources except for UJL that make used of few non-professionals. Similarly, the two university libraries also encountered similar challenges such as epileptic power supply and poor network service. Furthermore, other challenges encountered by FUTML include barcode number generation and lack of conducive working environment while that of UJL include lack of skilled manpower and hardware inefficiency. Therefore, there is need for provision of stand by electricity generator and upgrading of Internet network services in the two university libraries and training and re-training of staff concern in UJL for effective and efficient service delivery.

Recommendations
Based on the findings of the study, the following practical recommendations were made to improve retrospective conversion exercise in Federal University of Technology, Minna, Library and University of Jos, Library:

1. The university libraries should uphold the reasons for the retrospective conversion and improve on it for effective and efficient service delivery.

2. The university libraries should produce catalogue cards using computer especially Federal University of Technology, Library Minna.

3. The university libraries should provide adequate number of barcode scanners for the staff especially Federal University of Technology, Library, Minna.

4. The university libraries should train and retrain their staff on all process of retrospective conversion from time to time.

5. The management of the two universities should provide stand by electricity generator to their libraries to serve as alternative to power supply.

6. Internet network service should be upgraded in the two universities.

7. The management of the universities should have willing attitude to support their libraries with conducive working environment for automation project.

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