

**AVAILABILITY AND ACCESSIBILITY OF AUTOMATED LIBRARY AS THE  
DETERMINANTS OF SERVICE DELIVERY OF LIBRARIANS IN FEDERAL  
UNIVERSITIES IN SOUTH-SOUTH NIGERIA**

**BY**

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**ABSTRACT**

*This study was carried out in order to assess the relationship which the availability and accessibility of automated library have with service delivery of librarians in Federal Universities in South-South Nigeria. An Expost-Facto design was used for this study, while population of this study comprised all librarians in federal Universities in South-South Nigeria. 60 respondents constituted the study sample selected using a simple random sampling technique. Data were collected using the structured questionnaire titled "AUTOMATED LIBRARY AND SERVICE DELIVERY QUESTIONNAIRE (ALSDQ)" constructed under the guidance of 2 test and measurement experts in University of Uyo. Two specific research objectives and null hypotheses were formulated to guide the study. The two null hypotheses were tested at 0.05 level of significance using Pearson Product Moment Correlation analysis, while the research questions were answered using descriptive statistics (mean statistics). The results of the statistical analysis revealed that, there is significant relationship between the availability of automated library and service delivery of librarians in federal Universities in South-South Nigeria. It also revealed that there is significant relationship between the accessibility of automated library and service delivery of librarians in federal Universities in South-South Nigeria. Based on these results, it was recommended that government and school authorities should ensure that in our institutions, there are adequate availability of the automated libraries for use by both the librarians and patrons. It was also recommended that the available libraries should be made accessible to all students in order to enhance their learning.*

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**INTRODUCTION**

The library is the heart of the educational enterprise and also the reservoir of knowledge communicated through information resources. The library provides library use education to equip users with knowledge. The education enables the user to use the library resources effectively and efficiently. Information, of which one of the main sources (library) has been well

appreciated, is fast becoming a vital national resource that determines the direction of any nation. Therefore, librarians must be conversant with development in information and its communication technologies for the organization and dissemination of information in order to improve learning, increase knowledge and encourage sound researches in the Nigerian Universities.

Significant improvement for recording information began to be realized with the advent of online batch processing systems. Automation of library activities began to take place in 1940s as libraries installed offline batch processing system, but very few of these systems were installed prior to the 1970. The few that were installed during these three decades used either key punch machines to produce machine readable cards to produce machine readable tapes. The mid-1970s ushered in a major boom in automation, as a result of development in computer hardware and software that could support time-shared interactive online activities. As a result of this technological innovation, online real-time systems (the earlier prototype developed by libraries) began to replace batch processing systems. Over the past decade or two, online systems have evolved simplistic single function systems that provides information from only one set of library function (e.g. circulation, acquisition etc) to complex integrated system that deliver a well routed view within one system of the inter-relatedness of all functions (Adesida and Fatuyi, 2001:69).

According to Nwezeh and Shabi (2011), librarians have information dissemination as their predominant function. The library has a unique position as a potential educational force in the university community of staff and students of different levels especially in this era of information communication technology which can facilitate the libraries' capability to reach out to direct users as well as remote access users. Although students are important part of the set up of academic institutions being the major users of academic library facilities, the staff particularly the academic staff also makes maximum use of the library. Agboola and Bamigboye (2011) maintained that the quality and strength of any educational program depends on the library; not the library as a magnificent building but the use of it. Professional librarians that work in the university libraries especially in this information era have always engaged themselves with the collection, organization and dissemination of information resources to support research and learning.

Steinmueller (2001), cited by Drisu (2009) argued that its (ICT) Information Communication Technology sustainability among library operations in developing countries can only be possible where relevant facilities are available. A number of ICT facilities or resources have therefore been variously listed. They include Internet, E-mail, GSM handset, Television, CD-ROM, Websites/pages, Audio tapes and CDs. Okore, (2010) postulates that, ICTs encompass the following technologies: software technologies for distributed information processing; telephone, information technology components and subsystems such as semi-conductors, micro-systems, peripherals, web-browser and servers; multimedia systems (integrated personal systems); microprocessor systems, high performance computing and networking (HPCN) technologies for business processing, photonic technologies, digital multimedia services and uninterrupted and reliable electric supply (Okore, 2'005).

The need for adequate availability and accessibility of automated library has been well advocated by experts as they are considered prominent determinants of service delivery of librarians. In this age of Information Technology (IT) as it is fondly called, libraries in both developed and the developing countries are characterized with the provision of resources to their

teeming users on-lines. Hadengue (2004) describes online learning, as an educational concept, which implies using local, extended networks, or the Internet to spread information, to communicate, and to support any other kind of educational interaction between students and teachers. It is the effective learning process created by combining electronically delivered content with (learning) support and services (Waller and Wilson cited in Wang and Hwang, 2004). Other terms in use for this concept, according to Hadengue, include e-learning, virtue learning, distance learning, and tele-learning.

E-learning strategies offer a larger amount of information than traditional courses as well as easier access to that information. Both controlled information sources (i.e. provided narrowly by the teacher's textbook) and open information sources are available in parallel. It thus opens the way to greater diversity in the learning process through which the student masters the information provided.

### **Statement of the problem**

It is regrettable that libraries in the Nigerian Universities are yet to be called automated libraries. Many of them are still operating manually and when this happens the librarians cannot actually perform their stewardship effectively. Many at times librarians in the Nigerian Universities including the ones in Federal Universities cannot deliver their services as expected. It is a fact that when the librarians are constrained with manual methods of operations, students and other users of libraries stand to suffer.

It is obvious that there are several benefits of automated library. But our universities in South-South zone have not really tested what universities in other countries as enjoying and so they are in dire needs of automated libraries. These needs create a very big gap to be filled by our eminent scholars. Hence, this research is conducted in order to proffer the needed solutions by filling the gap. Hence, this study is conducted to determine the effect of the availability and accessibility of automated library on service delivery of librarians in Federal Universities in South-South Nigeria.

### **Objectives of the study**

The main objective of the study is to assess the availability and accessibility of automated library and service delivery of librarians in federal Universities in South-South Nigeria, while specific objectives are as follows:

1. To find out the relationship between availability of automated library and service delivery of librarians in federal Universities in South-South Nigeria.
2. To determine the relationship between accessibility of automated library and service delivery of librarians in federal Universities in South-South Nigeria.

### **Research questions**

The following research questions will be answered:

1. What is the relationship between availability of automated library and service delivery of librarians in federal Universities in South-South Nigeria?
2. What is the relationship between accessibility of automated library and service delivery of librarians in federal Universities in South-South Nigeria?

## **Hypotheses**

The following hypotheses will be tested:

1. There is no significant relationship between availability of automated library and service delivery of librarians in federal Universities in South-South Nigeria.
2. There is no significant relationship between accessibility of automated library and service delivery of librarians in federal Universities in South-South Nigeria.

## **Literature review**

### **Availability of Automated Library Service Delivery of Librarians**

The basic infrastructure of an information society includes adequate access to computer and telephone connectivity. Internet services providers (ISPs) have been requested to provide low cost services, adequate telecommunications bandwidth, and locally-relevant online content, and preferably, in local languages. Other requirements are reliable electricity supply and Internet connectivity, as the computers and other tools of a digital age require large and reliable amounts of electrical energy (Wheeler, 2003).

In the words of Oketunji (2000) as mentioned in Anunobi (2005) ICTs available for libraries include personal computers, CD-ROM, fax, network, electrocopy (scanning) and Internet. In attempt to catalogue ICT resources, Aliyu (2005) rather leans towards communication based resources and regards the following: communication satellite, cable television networks, wireless telephone systems, computer network system and the internet. These according to Anunobi, have communicative powers that have made great impact on the society. In a related development, Blakes (2006) in a study conducted on ICT availability and resource sharing in some academic libraries in Nigeria designed a research instrument to measure the status of ICT equipment/tools in the universities. The ICT resources listed include computers, uninterrupted power supply (UPS), scanners, satellite dish, antenna, CD-ROM, internet connectivity, website, automated LAN and automated WAN. Others include telephone (GSM), printer, software programme, E-mail, V-SAT main server, modem, telephone landline, telephone network, telex and fax.

### **Enabling Factors**

It has been echoed earlier that any library that works with the application of Information and Communication Technologies not only has the best of the information in the world, but also the added advantage of meeting up the enormous demand for the information by users (Eyo and Ebye, 2009). In essence therefore, there are both external and internal factors to the library environment which will endanger shift from the traditional library services to the technological model. Omekwu (2003) identifies internal factors, which serve as catalyst for the availability and easily utilization of ICT in academic libraries as:

- (i) Management decision to introduce computer system.
- (ii) Purchase of ICT based system like CD Rom
- (iii) Where the CEO of the organizational environment is computer literate or has been successfully exposed to ICT driven information management methodologies.

- (iv) Where Local Area Network has been initiated for the entire organization
- (v) Where Library themselves champion the movement for application of ICT in their organization.
- (vi) The challenge to access and contribute to international Data base like Online Computer library catalogue; Lexis, Nixes etc.
- (vii) The need to increase the speed of services like bibliography compilation.
- (viii) Decision to develop marketable information products and services.
- (ix) Management decision to modernize information services and system to conform to international standards and trends.

### **ICT Facilities for effective Library Service Delivery:**

Information as a product of research and management of the knowledge content of books, Journals; and media outputs, have presented great challenges to library practices and information professional in particular. Thus as information scientists whose work is information manipulation there is a greater need to identify and have access to the appropriate ICT facilities relevant to their designed operation, i.e. facilities that will enhance effective services delivery. Some of these facilities as stated by Omekwu (2003) include:

- (a) Computer system
- (b) The Internet
- (c) Fax Machines
- (d) The Online Public Access Catalogue (OPAC)
- (e) E-mail
- (f) Scanners
- (g) Printers
- (h) Mobile phones with WAP wireless Application Protocol
- (i) Reprographic Machines

**Computer:** It is electronic devices which accepts, stores and process data as desired, retrieved and stored data and print the result in required format. It comes in types: Analogue, Digital and hybrid, and it can be Micro, Mini, Mainframe and supercomputer in sizes. It is called a system when all the accessories are attached to performed aforementioned functions.

**The Internet:** The internet sometimes called the Net is a worldwide system of computer networks. It is a network of networks in which a user at any one computer is granted the access to information from any other computer system. The acquisition, storage, processing and dissemination of information processes has been the entire business of the library profession all these years so we can be proud to say that the world has now come to apply what libraries have loved to do all these decades, but in extremely more sophisticated and efficient manner (Eyo and Ebye, 2009).

**The Online Public Access Catalogue:** As the name implies OPAC is a computerized online catalogue of the materials held in a particular library or library system. Modern computer

OPACs offer variety of search capabilities on several indexes book cover, video clips, and other interactive requests and renewal functions.

**E-mail:** For many internet users electronic mail (e-mail) has particularly replaced postal services for short transactions in Nigeria and the world as a whole. Its resolute hardware and software allows unlimited usage with many service providers ability to read files written in HTML easily accessible and large memory to host mails and makes e-mail a reliable library tool.

**Scanners:** These are devices used to replicate or convert hard copies of information into electronic formats for the purpose of editing, storage and transfer. They are another useful tool for information delivery.

**Printers:** These are output devices required by computers for generation of hard copies of information. They come in different types, speed and sizes.

**Mobile Phones with Wireless Application Protocol (WAP):** These are electronic/communication devices for easily information dissemination and gathering regardless of geographical locations. Service providers are many and very competitive for the libraries to choose from.

**Reprographic machines:** Machine in this class includes Microscopy, photocopy and duplicating. They help in duplication, storing and retrieval of usually recorded message for easy use.

### **Advantages of Information and Communication Technologies (ICTs) in Nigerian University Libraries**

Over the years, the introduction of modern Information and Communication Technologies (ICTs) to library management has drastically changed the technologies and needed to perform the traditional library operation of acquisition, storage, cataloguing, dissemination etc. efficiently and effectively. According to Ukachi (2011), the application of ICT to library services has generally been accepted by academic libraries as the most effective means of providing timely, accurate and efficient information services. The application of computers in library services has made provision for the expansion of the scope of information and services available to library users irrespective of their location; thus ensuring effectiveness and efficiency in services provided. Given the centrality of computers to information flow, the use of Information and Communication Technologies (ICTs) to facilitate research has become indispensable.

### **Advantages, Disadvantages and Functions of Electronic Library Services**

Nweke, Yakub and Omale (2012), outlines the following advantages, disadvantages and functions of Electronic Library Services which may also be useful in the establishment and management of Electronic Libraries in Nigeria.

#### **Advantages of Automated library**

- a) Electronic library provides a starting point for all research.
- b) Electronic Library provides adequate and appropriate educational opportunities for all students in higher institutions.

- c) It provides excellent opportunities for a broad range of patrons to find appropriate research materials all in one place.
- d) The access to information is nondependent on the patron being in one location.
- e) It does not depend on each user having a particular type of computer or even a computer at all.
- f) Electronic libraries can be customized to enable user have access to what they want and need to use.
- g) The librarian is in full control of the selection of materials for the electronic library since he has the professional experience in the field.

### **Disadvantages of Automated Library**

- a) Lack of internet and epileptic power supply.
- b) Too many resources to choose from.
- c) Cut and paste may be difficult to new users as a result of PDF format.
- d) Google provides unwanted materials even when they are not needed.
- e) Obsolescence of books.
- f) Inadequate funding hinders the efficient and effective service delivery of most e-library in Nigerian Institutions.
- g) Problem of bandwidth.

### **The use of ICT in our Academic Libraries Entails Three Components:**

The three Components are content, delivery mechanism and frontend infrastructure.

**Content:** The creation of high quality interacting trained staff is the key to unlocking the potentials of ICT usage in academic libraries as well informed and consistently high quality staff can ensure good service delivery.

**Delivery Mechanism:** Effective Service Delivery needs communication infrastructure in the form of broadband connectivity, fibre optic lines, table TV, Satellites link, free and open software programmes and equipment's.

**Front End Infrastructure:** This includes computer and its accessories, network resources and facilities.

### **Benefits of ICTs for Academic Library:**

ICTs- driven Academic Library has the following benefits

- Improved searching methods through different search engines and manipulation of information.
- Improved facilities for information sharing.
- Accessibility to information is made possible in a short time.
- Improved collaboration with other information institutions and centres.
- Opportunities to form consortia where they can pull their resources together and get a good bargain of scale to acquire library software.
- Universal Access – people from all over the world gain access to the same information as long as an internet connection is available.
- Capacity - there are limited storage spaces in traditional libraries while ICTs based academic libraries have the potential to store much more.

Information, simply because digital information requires very little physical space to contain them.

- Cost – the cost of maintaining automated academic library is much lower than that of a traditional library. A traditional library must spend large sum of money paying for staff, books, maintenance, rent and additional books (Ibinaye, 2012).

### **Basic Functions of Electronic Library**

- a) Easy access to a wide range of information in all disciplines.
- b) Provide services suitable for a library of the 21<sup>st</sup> century, including making information readily available through electronic library.
- c) Provide researchers with enough periodicals and books in the library.
- d) Provide a digital museum where digital images are edited and processed for virtual exhibition space.
- e) It makes access to magazine articles, books, papers, images, sound files and videos possible online.
- f) It enables the users to directly access electronic data via telecommunications networks (Nweke, et al., 2012).

### **Usefulness of Automated Library can be seen as follows:**

#### **Improved customers services**

Automation of the library helps take some of the workload off of librarians and other staff members in the areas of acquisitions, cataloging and circulation which in turn allows them to better serve their patrons. This extra time can lead to more programs being facilitated in the library and make library staff available to answer reference question and help people who are having problems researching or finding the right information.

#### **Cataloging Improvements**

Automated cataloging standards such as MARC (Machine Readable Cataloging), allows for quicker cataloging of library items. Not only does this allow the librarians more time to dedicate and improve services, but it also makes the sharing of materials from location much easier and much more affordable.

#### **Easier Access**

Not only does automation of library materials make it easier to find books, but it also makes it easier to access journals and some books online from home computer or elsewhere. The automation of library collections also allows the library to be more flexible when it comes to any increase in demand.

#### **Collections**

Automation of library allows for an improvement in the variety, amount and quality of materials that are available in the library's collection. It can also help in weeding out old, outdated and irrelevant books and materials from the collection which helps keep the library's collection more streamlined and easier to find the right items.

#### **Lasting Effects**

Automation is also a way of preparing the collection to become sustainable with the ever-increasing shift to a technology-based society in terms of information dissemination, paired with



the ever-decreasing amount of finding for librarians. Automation will help libraries who begin to struggle and forced to lay off staff, switching to an automated system allows libraries to add on features when they become available in the future instead of having to do a complete overhaul of collections and cataloging methods.

### **Factors posing problems to these Nigerian university libraries and strategies for enhancing the academic library services**

A good number of factors hinder the adequate provision of library and information services and resources by these university libraries. Government-owned university libraries according to Ifijeh (2011) are suffering from a low budgetary allocation for education. An analysis of the federal government allocation to the education sector within nine years is discouraging. Ifijeh (2011) citing Mordi (2008) indicated that between 2000 and 2008, the Nigerian Federal Government allocated an average of only 9% of its budget to education. From this meager budget, the libraries are funded. Although there has been an improvement on the budgetary allocation in recent years, it is not enough to bring about the needed transformation in the education section. That has even moved notable educational bodies to use industrial actions to draw the government's attention towards implementing policies which are easily formulated, put in paper but hardly implemented. With such low funding, universities are not able to operate libraries with first-class services. As a result, facilities and information resources are inadequate, and students use the libraries mainly for study space. Akin and Ajayi (2008) also noted that the Nigerian education sector and in particular Nigerian university libraries are yet to recover from the economic down turn of the 1980s and the subsequent impact of this is the under-funding of the university libraries.

If the university libraries want to meet the expectations of their clientele and the current wave of technological developments in the library and information services which will even facilitate their contribution to achieving education for all, improved funding is needed (Akin and Ajayi, 2008). Many other improvement strategies emanate from this; like automation, acquisition, installation and utilization of electronic resources and facilities including the internet, subscribing to and maintenance of access to databases in different disciplines as well as training and re-training of staff will all be facilitated when fund is adequately available. Nwezeh and Shabi (2011) recommended that in order to serve the patrons better, the university libraries should re-address the issue of library orientation for fresh men, aggressive and large scale user education, providing functional library building and making library environment pleasant and comfortable amongst other things.

## **METHOD**

### **Research Design**

An Expost-Facto design was used for this study. In this type of design the researcher just obtained the effect already existing in the natural course of events.

### **Area of the Study**

The research area for this study was federal Universities in South-South Nigeria.

### **Population of the Study**

The population of this study comprised all librarians in federal Universities in South-South Nigeria.

### **Sample and Sampling Techniques**

A simple random sampling technique was used to draw the 60 respondents derived from 6 federal Universities in South-South Nigeria.

### **Instrumentation**

The main instrument used in this study was a questionnaire titled “AUTOMATED LIBRARY AND SERVICE DELIVERY QUESTIONNAIRE (ALSDQ)”. The questionnaire was made up of two sections, sections A and section B. While section A of the questionnaire was used to collect information on the personal data of the respondents section B of the questionnaire was made up of three variables such as availability of automated library, accessibility of automated library and service delivery of librarians. The obtained data was coded statistically and used for statistical analysis.

### **Validation of the Instrument**

The instrument passed through face and content validation by 2 test and measurement experts.

### **Reliability of the Instrument:**

Cronbach Alpha technique was used to determine the level of reliability of the instrument with 30 respondents who did not form part of the main study randomly selected from one federal university in one of the state in North East Zone and the instrument administered on them. The reliability coefficient obtained was 0.81 and this was high enough to justify the use of the instrument.

### **Procedure for Collecting Data**

A letter of introduction was used by the researchers to introduce them to the Chief librarian of each federal University in the study area. With this the researchers were permitted to issue the questionnaire to the respondents of which the retrieval was done 2 days latter from each University.

### **Method of Data Analysis**

The data collected were subjected to appropriate statistical techniques such as descriptive analysis (mean and standard deviation) and Pearson Product Moment Correlation Analysis. With respect to the hypotheses, test for significance was done at 0.05 alpha levels.

## **Results and Discussion**

### **Answering the research questions**

#### **Research Question One**

The research question sought to find out the relationship between the availability of automated library and service delivery of librarians in federal Universities in South-South Nigeria. In order to answer the research question, descriptive analysis was performed on the data collected as shown in table 1.

**Table 1**  
**Descriptive analysis of the relationship between the availability of automated library and service delivery of librarians in federal Universities in South-South Nigeria**

Variable	N	Arithmetic mean	Expected mean	R	Remarks
Availability of automated library	60	13.48	12.5	0.69*	*Moderately strong relationship
Service delivery of librarians		14.58	12.5		

**Source: Field Survey**

Table 1 presents the result of the descriptive statistics of the relationship between the availability of automated library and service delivery of librarians in federal Universities in South-South Nigeria. The two variables were observed to have moderately strong relationship at 69%. The arithmetic mean for the availability of automated library 13.48 was observed to be slightly greater than the expected mean score of 12.5. In addition to that, the arithmetic mean as regards services delivery of librarians (14.58) was observed to be slightly higher than the expected mean score of 12.5. The result therefore means that there is remarkable relationship between the availability of automated library and service delivery of librarians in federal Universities in South-South Nigeria.

**4.1.2 Research Question Two**

The research question sought to find out the relationship between the accessibility of automated library and service delivery of librarians in federal Universities in South-South

Nigeria. In order to answer the research question, descriptive analysis was performed on the data collected as shown in table 2.

**Table 2**  
**Descriptive analysis of the relationship between the accessibility of automated library and service delivery of librarians in federal Universities in South-South Nigeria**

Variable	N	Arithmetic mean	Expected mean	r	Remarks
Accessibility of automated library	60	13.85	12.5	0.79*	*Strong to perfect relationship
Service delivery		14.58	12.5		

**Source: Field Survey**

Table 2 presents the result of the descriptive statistics of the relationship between the accessibility of automated library and service delivery of librarians in federal Universities in South-South Nigeria. The two variables were observed to have strong to perfect relationship at 79%. The arithmetic mean for accessibility of automated library (13.85) was observed to be slightly greater than the expected mean score of 12.5. In addition to that the arithmetic mean as regards service delivery of librarians (14.58) was observed to be slightly higher than the expected mean score of 12.5. The result therefore means that there is remarkable relationship between the accessibility of automated library and service delivery of librarians in federal Universities in South-South Nigeria.

**Hypotheses Testing**

**Hypothesis One**

The null hypothesis states that there is no significant relationship between the availability of automated library and service delivery of librarians in federal Universities in South-South Nigeria. In order to test the hypothesis, Pearson Product Moment Correlation analysis was used to analyze the data (see table 3)

**Table 3**  
**Pearson Product Moment Correlation Analysis of the relationship between the availability of automated library and service delivery of librarians in Federal Universities in South-South Nigeria**

Variable	$\Sigma x$	$\Sigma x^2$	$\Sigma y$	$\Sigma y^2$	$\Sigma xy$	r
Availability of automated library (X)	809	11057			11911	0.69*
Service delivery of librarians(Y)	875	12939				

**\*Significant at 0.05 level; df =58; N =60; critical r-value = 0.235**

Table 3 presents the obtained r-value as (0.69). This value was tested for significance by comparing it with the critical r-value (0.235) at 0.05 levels with 58 degree of freedom. The obtained r-value (0.69) was greater than the critical r-value (0.235). Hence, the result was significant. The result therefore means that there is significant relationship between the availability of automated library and service delivery of librarians in federal Universities in South-South Nigeria. Meaning that as there is low level of availability of automated library in federal Universities in South-South Nigeria there is a corresponding low level of service delivery by the librarians in those institutions.

**Hypothesis Two**

The null hypothesis states that there is no significant relationship between the accessibility of automated library and service delivery of librarians in federal Universities in South-South Nigeria. In order to test the hypothesis Pearson Product Moment Correlation analysis was used to analyze the data (see table 4)

**Table 4**  
**Pearson Product Moment Correlation Analysis of the relationship between the accessibility of automated library and service delivery of librarians in federal Universities in South-South Nigeria.**

Variable	$\Sigma x$	$\Sigma x^2$	$\Sigma y$	$\Sigma y^2$	$\Sigma xy$	r
Accessibility of automated library (X)	831	11717			12270	0.79*

Service delivery of librarians (Y)      875                      12939

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**\*Significant at 0.05 level; df =58; N =60; critical r-value = 0.113**

Table 4 presents the obtained r-value as (0.79). This value was tested for significance by comparing it with the critical r-value (0.235) at 0.05 levels with 58 degree of freedom. The obtained r-value (0.79) was greater than the critical r-value (0.235). Hence, the result was significant. The result therefore means that there is significant relationship between the accessibility of automated library and service delivery of librarians in federal Universities in South-South Nigeria. Meaning that as there is low level of accessibility of automated library in federal Universities in South-South Nigeria there is a corresponding low level of service delivery by the librarians in those institutions.

### **Discussions**

The result of the data analysis in table 3 was significant due to the fact that the obtained r-value (0.69) was greater than the critical r-value (0.245) at 0.05 level with 58 degree of freedom. This result implies that the result therefore means there is significant relationship between the availability of automated library and service delivery of librarians in federal Universities in South-South Nigeria. The result is in agreement with the research findings of Drisu (2009), who argued that its (ICT) Information Communication Technology sustainability among library operations in developing countries can only be possible where relevant facilities are available. The result of the analysis caused the null hypothesis to be rejected while the alternative one was retained.

The result of the data analysis in table 4 was significant due to the fact that the obtained r-value (0.79) was greater than the critical r-value (0.245) at 0.05 level with 58 degree of freedom. This result implies that the result therefore means there is significant relationship between the accessibility of automated library and service delivery of librarians in federal Universities in South-South Nigeria. The result is in agreement with the research findings of Omekwu (2003) who stated that as information scientists whose work is information manipulation there is a greater need to identify and have access to the appropriate ICT facilities relevant to their designed operation, i.e. facilities that will enhance effective services delivery. The result of the analysis caused the null hypothesis to be rejected while the alternative one was retained.

### **Conclusions**

Based on the findings of the research work, the researchers wish to conclude that there is regrettably low level of availability and accessibility of automated library in federal Universities in South-South Nigeria and that there is a corresponding low level of service delivery by the librarians in those institutions. Besides, there is significant relationship between the availability of automated library and service delivery of librarians in federal Universities in South-South Nigeria. Finally, there is significant relationship between the accessibility of automated library and service delivery of librarians in federal Universities in South-South Nigeria.

### **Recommendations**

The usefulness of an automated library system cannot be underestimated and so with this usefulness the following recommendations should be implemented in making it more realistic.

1. Government and the school authorities should ensure that in our institutions, there are adequate availability of the automated libraries for use by both the librarians and patrons.
2. It is also deemed necessary that the available library should be made accessible to all students in order to enhance their learning.
3. It is also recommended that there should be creation of awareness or orientations given to students about the system as this will help them develop interest in using the electronic library resources.
4. The librarians should be trained on the usage of electronic library resources as it will help them transfer the knowledge to the students for proper knowledge
5. The machines should be updated at all times as they will keep universities in Nigeria move at same pace with the ones in the developed countries. With this, provisions of fresh ideas and current information to the staff and student will be guaranteed.

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