

INFORMATION TECHNOLOGY SKILLS AND USERS' SATISFACTION WITH LIBRARY SERVICES IN AKWA IBOM STATE ELECTRONIC LIBRARY

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ABSTRACT

This study investigated Information technology skills and users' satisfaction with library services in Akwa Ibom State Electronic Library. Three research questions, three hypotheses were formulated as a guide to the study. Descriptive survey research design was used in carrying out the study. The population of the study was 647 registered library users. A sample size of 129 respondents was selected from the population of 647 registered library users, using an Accidental Sampling technique. A research designed questionnaire titled "Information Technology Skills and User Satisfaction with Library Services Questionnaire (ITSUSLSQ)" was used for data collection. Data collected were analysed using mean and standard deviation scores for answering research questions, while t-test was used in testing the hypotheses. The findings of the study revealed that operating system skills, desktop support skills, and data storage skills have significant influence on users' satisfaction with library services. Based on the findings, the researcher recommended that the library management should try to upgrade and maintain their operating system used, and make it user friendly and easy to access for their users. The library authority should ensure that capable and qualified hand is employed as desktop support Technician/Engineer. Quality and effective data storage facilities should be properly put in place for the usage of their users.

KEYWORDS: Technology Skills, Operating System, Desktop Support, Data Storage, Library Management

INTRODUCTION

As information is crucial for all professionals, so also it is to all library users. Information has therefore come to be regarded as tangible resources like steel, wheat or electricity. Letseka (2001) posited that, information technology empowers students through access to online information searching facilities and expedites research and academic activities as well as global networks. However, according to Khodeh and Dhar (2002) information services are generated using new tools and techniques to facilitate the right users to the right information. Manjunatha (2007) viewed in the library; the impact is clearly visible on information resources, services, and people. Ogunsola (2004) explained that the pace of change brought by new technologies has had a significant effect on the way people live, work and play worldwide.

Aina (2004) states that libraries are concerned with the collection, processing, storage and dissemination of recorded information for the purpose of reading, studying and consultation. The author added that for any library to attain these goals, many activities are performed by the libraries which translate to library and information services. The author summarised information technology skills to include the following: operating system skill, desktop support skill, and data storage skill are to be used for the study and user satisfaction as the dependent variable.

An "operating system" is a software program that controls the allocation and use of computer resources (such as central processing unit time, main memory space, disk space, and input/output channels). The operating system is also software which makes a computer actually work. Khodanpur (2007) opined that operating system acts as an interface

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between the application programs and the machine hardware.

In a statement made by Tripathi (2014), an operating system skill is a special kind of programs that allow one to organize and controls computer hardware and software. It acts as an interface between the user and the machine.

Desktop support skill means that a prospective candidate who will work directly with customers to resolve computer problems. If the problem is incapable of the phone, the ticket will be dispatched to desktop support, where a more advanced technician will visit the library user time and most importantly-fixing the problem permanently. It is not uncommon for the same library user to call back and report the problem started again. Desktop support specialist acts as the single point of contact for end users or customers to receive maintenance and support, including installing, maintaining, diagnosing, upgrading and repairing all hardware and equipment to ensure optimal performance.

Data storage skill is a systematic skill possess in the sense that it paves way for easy storage of information on any storage devices. Though, the term data storage can also refer to anything with information recorded on it. Henceforth, the most popular definition of the term limits it to only the storage of information on computers and similar devices. Engelhardt (2008) claimed that storage systems are an essential part in the overall organization of information. Comprehensive storage management goes far beyond backup and recovery.

However, Zeithman & Bitmar (2000) see user satisfaction in the electronic library as the means which users determine that product or services meet the required needs and expectations. If the products or services do not meet their needs or expectations, it is therefore assumed that they are dissatisfied with the product or services. Similarly, Iwhiwhu & Okorodudu (2012) stated that users satisfaction of library information resources and services is a way in which users judge the adequacy of the library information resources and services rendered to them and also if their expectations are provided to them. Ikenwe & Adegbilero-Iwari (2014) submitted that library user satisfaction implies how users feel after using the information resources and services and their willingness to return to the library when next they need information.

In conclusion, libraries must take the initiative to use of information technology, thereby making information technology an integral part of the library's infrastructure. This is because there is a gradual shift in the search for information resources by library users for research purposes. Many users depend solely on the materials found on the internet through their personal gadget. It contradicts with this background that the researcher has in mind to conduct a study to determine the influence of information technology skills and user satisfaction with information services in Akwa Ibom state electronic library.

STATEMENT OF THE PROBLEMS

In the recent time, information technology has become an indispensable tool for information service delivery in modern libraries for its speed, accuracy, consistency and high precision. With the aid of information technology, information is generated as fast as possible with less mistakes and it ensures dissemination of precise and concrete information. The use of information technology skills in the achievement of desired goals in the workplace is proportional to the information technology skills possessed. Therefore, this affects the proficiency of information technology use and efficiency of the library staff of their duty to satisfy information needs of their users. Abdulganry (2002) points out that the new information technology cannot be fully exploited if there is no adequate level of information and communication technology competencies among library staff.

More so, all these tried to find out the level of information technology skills possessed by the library staff without determining the effect of information technology facilities and skills on its application to utilize in their professional daily routines.

The big question here is, is it that there is no any well-trained staff with information technology skills in the library? Is it that none of the library staff understand how to make use of information technology facilities in their daily routine?

It's based on these challenges that this study is conducted to determine information technology skills and user satisfaction with library services.

OBJECTIVES OF THE STUDY

The objectives of the study are:

- To determine the influence of operating system skill on user's satisfaction with library services.
- To determine the influence of desktop support skill on user's satisfaction with library services.
- To determine the influence of data storage skill on user's satisfaction with library services.

RESEARCH QUESTIONS

The study has the following research questions:

- Is there any influence on operating system skill on user's satisfaction with library services.
- Is there any influence of desktop support skill on user's satisfaction with library services.
- Is there any influence of data storage skill on user's satisfaction with library services.

HYPOTHESES

The following null hypotheses guided the conduct of this study:

- There is no significant influence of operating system skill on user's satisfaction with Library Services.
- There is no significant influence of desktop support skill on user's satisfaction with Library Services.
- There is no significant influence on data storage skill on user's satisfaction with Library Services.

SIGNIFICANCE OF THE STUDY

The findings of this study will be significant to library staff, library patrons, researchers, information scientist and Uyo metropolis.

In the aspect of the library staff, this study will be of benefit by encouraging the library staff to know that information technology skill acquisition is important in the discharge of their information services.

Library patrons will be of benefit as well through this study in the sense that it will create more awareness about the library, encouraging the library users to information technology acquisition and facilitate them with a better and appreciative usage of both library and information technology facilities for their information needs. Findings from this study also show that researchers will be of benefit as well because the usage of information technology facilities will enhance to get information resources required for their research work.

More so, this study will boost the morale and encourage the information scientist in carrying out of their daily routines and in the provision of quality and adequate information resources to their users.

Nevertheless, Uyo metropolis will be of benefit by finding it easy to consult their information needs in the library at any point in time. And it will also create more awareness to them about library services and information technology usage.

LIMITATIONS OF THE STUDY

This study will be limited to the investigation of independent variables of staff, information technology skills such as operating system, desktop support, and data storage on the dependent variable of user satisfaction with information services in Akwa Ibom state electronic library. The study will be limited to only Akwa Ibom state electronic library, Uyo, located on the IBB Avenue in Uyo metropolis.

REVIEW OF RELATED LITERATURE

This chapter deals with a review of related existing literature relevant to the study. The reviewed literature is organized into the following sub-headings:

Theoretical Framework, Conceptual Framework: Concept of information technology, Concept of user satisfaction, Influence of operating system skill on user satisfaction, Influence of desktop support skill on user satisfaction, Influence of data storage skill on user satisfaction, Empirical Review of Previous studies, Summary of literature review.

THEORETICAL FRAMEWORK

Technology Acceptance Model 1989

The Technology Acceptance Model (TAM) was developed by Davis in 1989. TAM provides an explanation on the determinants of technology acceptance that is generally capable of explaining user's behaviour. It explains the attitudinal, social control, and factors that affect Information Technology usage. He stated that the usage of an information system is determined by users' intention to use the system, which in turn is determined by users' beliefs about the system.

The basic elements of the Technology Acceptance Model (TAM) to this study are:

- Perceived Usefulness of information technology skills acquired.
- Perceived ease of use of information technology skills acquired.

Perceived usefulness is the extent to which a person believes that using the system will enhance his job performance. Perceived ease of use is the extent to which a person believes that using the system will be free of effort. Although perceived usefulness has a direct effect on adoption intention, perceived ease of use, which could come as a resultant effect of the students' computer self-efficacy or attitude towards the use of the system, has both a direct effect and an indirect effect on intention. This theory also explained that perceived usefulness and perceived ease of use will have a significant impact on a user's attitude towards the use of the system which may be feelings of favourableness or unfavourableness towards the system. A user who could not see the usefulness of the use of information technology

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facilities or sees the use of computer technology as a very difficult task will manifest a negative behavioural attitude towards the use of information technology facilities or computer technology in retrieving information for use in research and other academic activities.

This model is related to this study because of the application of information technology. Similarly, a user who has low computer self-efficacy will also not perceive the use of the facilities easy since its use entails manipulating the computer. The implication here is that users' attitude towards the use of information technology facilities and their computer self-efficacy, respectively, which reflects the perception and belief in one's capability, will enhance performance and use of resources accessed electronically, via technological facilities.

Concept of Information Technology

Information technologies encourage the library users to patronage of the library in order to satisfy their information needs. Library users also used to satisfy with the library services by getting attention from the library staff and through information technology application. The use of information technology has become imperative for the efficient management of modern libraries. Library automation is one of the major applications of information technology in libraries. According to Venkataraman (2008) information technology has helped to change the libraries In-house activities (Acquisition, Cataloguing, Indexing, Serial control, Circulation etc.) from manual system for automation. In 1990s, most of the libraries have computerized their in-house activities. Recently, libraries have to implement increasingly complex solutions that involve distributed networking and access to remote information resources. Effective use of information technology in libraries increases efficiency in operations, eliminates repetitive nature of the works, improves the quality and range of services, facilitates easy and wider access to all kinds of information sources, facilitates faster information, communication, increase morale and motivation of library staff, facilitates cooperation and resource sharing, save time, space, improves productivity and image of library.

Storey (2005) opined that the use of information technology in libraries has tremendously increased due to its enhanced user satisfaction, cost effectiveness, faster and simpler programmes, rapid communicative interaction and easier operational procedures.

Concept of User Satisfaction with Library Services

According to Ahmed (2010) a library is viewed as being functional if it is able to satisfy the user's information needs. The author further states that libraries in this age must be connected to ensure easy retrieval of information. "User satisfaction is also considered as a liable criterion for determining library effectiveness" (Thong and Yap, 1996). It is therefore very important for the library to keep their users satisfied. It is not only a reliable criterion; it is also perhaps the most vital one. According to Nwalo (2003) the library user is undisputed, the most important person in any library setting. Aina (2004) conclude that library user is the focal point to the 21st century library and information services, as the library primarily exist to satisfy the user.

Thakuria (2007) describes different factors which contribute to user satisfaction:

- Availability of up-to-date information brings about satisfaction in the users, accessing the facility and assistance.
- The library should organise its facilities to be visible to the users.
- The library services and resources should be easily accessible.

- The library staff should be very courteous and friendly in their engagements with the users.
- The appearance of a library, its facilities, collection, staff and services should be attractive and pleasant.

This explains the importance of the library's appearance and its contribution towards user's satisfaction. The users should find the environment user friendly and comfortable. According to Ijiekhuamhen, Aghojare and Ferdinand (2015) the level of using the library depends on users' satisfaction with the available information resources and services rendered to them.

Influence of Operating System Skill on User Satisfaction

Developers of operating systems, enabling global computing are an upcoming issue these days. Such an operating system is called the Web Operating System or Online Operating System. These terms have been used interchangeably. Tripathi (2014) opined that a Web Operating System or an Online Operating System on the other hand is a user interface that allows users to access a desktop and applications installed on the Web.

Deitel; Deitel; & Choffne (2004) posit that an operating system is software that enables applications to interact with a computer's hardware. The software that contains the core components of the operating system is called the kernel. Operating systems can be found in devices ranging from cell phones and automobiles to personal and mainframe computers. In most computer systems, a user requests that the computer performs an action (e.g., execute an application or print a document) and the operating system manages the software and hardware to produce the desired result. Operating system skill enhances effective library services in a way that it allows the library users in quick access, retrieval and dissemination of information resources and services to their users.

Influence of Desktop Support Skill on User Satisfaction

A technical support engineer understands the technical processes of a particular industry and assists with both internal and external technical issues, may include computer hardware or software problems. In short, technical support engineers ensure smoothly running operations for the companies that employ them.

A desktop support specialist is a trained computer expert who provides technical support to library users of computer software and hardware running the Windows, Macintosh, or Linux operating system. Most often, a support specialist work within the electronic library's as a systems librarian. Desktop support specialist can be more effective in the library and enhance the library user's service experience for all the users he supports if he acts as a facilitator. Desktop specialist also assist and guide the library users sometimes in searching for their information needs, which they find difficult to find by themselves online. Sometimes, when new library application software introduced, the library user will need to be educated on its functionality and feature through the desktop support specialist.

Influence of Data Storage Skill on User Satisfaction

Data storage is a repository of subjectively selected and adapted operational data, which can successfully answer any ad-hoc, complex, statistical or analytical queries. It is situated at the centre of a decision support system (DSS) of an organization or corporation and contains integrated historical data, both summarized and detailed information-common to the entire organization. Data storage enables easy organization and maintenance of large data in addition to fast retrieval and analysis in the manner and depth required from time to time. In any electronic library, data storage was perceived as a way of storing information resources on the computer (internal hard disk) or compact disk and so on. Information resources retrieved from library and other information centres commonly stored on storage devices because it enhances quick access to the particular information sources at any point in time. Therefore, data storage is very crucial to the library routines due to the fact that almost of the information stored on the devices are always saved and can be accessed when needed.

Summary of Review of Related Literature

The review of the related literature is very essential to the study in the sense that, it assists to highlight the gap which the researcher should follow. The related empirical studies also revealed both the positive and negative effects of information technology on user satisfaction. However, most of the empirical studies focused on the researcher discovered that all related studies are focused on the influence of information and communication technology and user satisfaction. None of the studies related to the influence of operating system skill, desktop support skill and data storage skill.

Research Methods

This chapter describes the research method(s) that was used in the research, which includes the research design, area of the study, population of the study, sample and sampling technique(s), instrument for data collection, validity of the instrument, reliability of the instrument, method of data collection and method of data analysis.

Research Design

The research design used was the descriptive survey research design. Aina (2003) asserted that the descriptive survey research design is a systematic and comprehensive collection of information that reflect the opinions, attitudes, feelings, beliefs and behaviours of people on an issue. This involves the collection of data about a target population using a selected sample and putting together the results of findings obtained from analysis of the sample as representative of the whole population later generalize the results obtained from the whole population. The survey research design was used for this work because the nature of the study itself warrants the use of the survey method as it enabled the researcher to reach out to the student population in their different locations.

Area of the Study

The area of the study is Akwa Ibom State Electronic Library. Akwa Ibom e-library is a state owned library with digitized and electronic materials that can be accessed by users through the Online Public Access Catalogue (OPAC). The electronic library situated at Uyo metropolis.

Population of the Study

The total population of registered library users of Akwa Ibom State electronic library is Six hundred and forty seven (647) with an average age between 11-51 years old and above; (Source is from the staff in-charge of the library user's registration) when the researcher visited the library. According to Adetoro (1986) suggested that a sample size of 20 percent of a population of up to 1,000 is sufficient to ensure representativeness, 10 percent for a population of up to 5,000 and 5 percent for a population of up to 10,000.

Sample and Sampling Technique(s)

The sample of this study consists of 647 registered library users of Akwa Ibom State electronic library. And, 129

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of the registered library users were used for the study. The number represents 20 percent of the entire population of the registered users of the library. The users were selected using an Accidental Sampling technique. In this case, copies of the questionnaire were administered to the library users selected when visited the library.

Instrument for Data Collection

The instrument used for data collection is questionnaire titled "Information Technology Skills and User Satisfaction with Library Services Questionnaire (ITSUSLSQ)". This was developed by the researcher in accordance with the research questions and research hypotheses. The questionnaire consists of three (3) sections (A, B, & C), and it contained twenty-two (22) items. Section A is to elicit information about the background of the respondents. It comprised of 3 questions. Section B, Part 1 asked question 1-5 related to Operating System skills. Part 2 asked question 6-10 on Desktop Support skills. Part 3 asked question 11-15 on Data Storage skills. It comprises of 15 questions. Section C asked questions related to Users Satisfaction with Library Services. It comprises of 7 questions. In response to the items in the instrument, the following keys were used, such as SA= Strongly Agreed, A= Agreed, D= Disagree, SD= Strongly Disagreed and VS= Very Satisfied, S= Satisfied, FS= Fairly Satisfied, NS= Not Satisfied.

Validation of the Instrument

To ensure that the questionnaire to be used for this study was valid, the researcher gave copies of prepared questionnaire to his supervisor and two other professionals in library and information science for face validation. The supervisor indeed validated the questionnaire items and in terms of clarity of instruction to the respondents; proper wording of items; appropriateness and adequacy of the items for the study. The observations, comments, criticism and recommendations of the research experts served as a guide to modifications of items in the instrument.

Reliability of the Instrument

The questionnaire was subjected to trial testing to ensure the reliability of the instrument, the researcher carried out a split-half reliability method using ten (10) library users of Akwa Ibom State library Abak, which is outside the area of study, but shares the same characteristics with the student population. The instrument was administered to ten (10) library users and their scores divided into two parts (even and odd numbers). The scores were analyzed using the Cronbach's Alpha reliability method. A reliability coefficient of 0.81 was discovered. The figure was considered high enough to make the instrument reliable to use for this study.

Method of Data Collection

The researcher administered the questionnaire in the library under study, which is the Akwa Ibom State electronic library. The questionnaire was personally distributed by the researcher himself after being granted permission from the Director of the library. The questionnaire was distributed and collected back immediately to ensure a high return rate.

Method of Data Analysis

To analyse the data, the researcher employed population in answering the demographic statistics of respondents, while mean and standard deviation in answering the research questions, while the dependent t-test was used in testing the hypotheses.

Decision Rule

For answering the three research questions, a cut-off mean score of 2.5 was fixed. In each case, any mean score above the cut-off was accepted and the independent variable considered having influence on the dependent variable.

PRESENTATION OF DATA AND RESULT

Demographic Characteristics of Respondents

This section presents the graphic representation of demographic characteristics of the respondents in terms of gender, age, marital status respectively.

Figure.1 shows the distribution of respondents by gender. Out of 129 respondents, 85 representing (65.9%) were female while 44 (34.1%) were male. This clearly shows adequate and equitable gender balance of the respondents

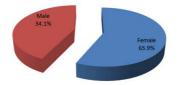


Figure 1: Pie Chart Showing the Distribution of Respondents by Gender

Figure 2 presents the distribution of the respondents by age group. This clearly indicates that the modal age group is 41-50 years (32: 25%), followed by those within the age bracket 31 - 40 years (33: 26%), 51+ years (22: 17%) above, 21-30 years (23: 18%) and 11-20 years (19: 14%) respectively.

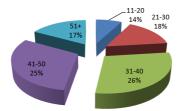




Figure 3 shows that respondents who are single are in the majority (91: 70%) followed by married (35: 27%); divorced (1: 1%); and widowed (2:2%) respectively.

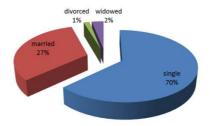


Figure 3: Pie Chart Showing the Distribution of Respondents by Marital Status

Answering of Research Questions

Three research questions were generated for this study to find out the influence of information technology and user satisfaction with library service in Akwa Ibom State Electronic library.

Research Question 1: Is there any influence of operating system skill on user's satisfaction with library services?

 Table 1: Mean and Standard Deviation of Operating System Skill on

 User's Satisfaction with Library Services

Variables	Ā	SD	Ν
Operating System Skill	11.42	6.43	129
User Satisfaction with Library Services	16.64	5.35	129

The results of data analysis as presented in table 1 above shows a calculated mean score 11.42 and standard deviation 6.43 for operating system skill and mean score of 16.64 and standard deviation of 5.35 for user's satisfaction with library services. The mean score of operating system skill and user satisfaction with library services is greater than the cut-off score of 2.5. The result therefore shows that operating system skill influence user satisfaction with library services.

Research Question 2: Is there any desktop support skill on user satisfaction with library services?

 Table 2: Mean and Standard Deviation of Desktop Support Skill on

 User Satisfaction with Library Services

Variables	Ā	SD	Ν
Desktop Support Skill	13.77	5.63	120
User Satisfaction with Library Services	16.84	5.35	129

The results as shown in table 2 above shows that calculated mean score 13.77 and standard deviation 5.63 for desktop support skill with the mean score of 16.84 and standard deviation score 5.35 for user satisfaction with library services. The two mean scores of operating system skill and user satisfaction with library services is greater than the cut-off scores of 2.5. From the above result, it concludes that desktop support skill has an influence on user satisfaction with library services.

Research Question 3: Is there any influence of data storage skill on user satisfaction with library services?

 Table 3: Mean and Standard Deviation of Data Storage Skill on

 User Satisfaction with Library Services

Variables	$\overline{\mathbf{X}}$	SD	Ν
Data Storage Skill	12.32	6.45	129
User Satisfaction with Library Services	13.15	3.35	129

The data analysis on table 3 reveals that mean score 12.32 and standard deviation score 6.45 for the data storage skill with the mean score of 13.15 and standard deviation score of 7.32 for user satisfaction with library services. The mean scores are found to be greater than the cut-off mean score of 2.5. The result shows that data storage skill has an influence on user satisfaction with library services.

Testing of Hypotheses

This section reports the results of the three (3) null hypotheses for this research. They were tested at. 05 level of significance.

Hypothesis 1: There is no significant influence of operating system skill on user satisfaction with library services.

Variables	Ā	SD	Ν	t-cal	df	t-cri
Operating System Skill	11.42	6.43	129	6.45*	133	1.96
User Satisfaction with Library Services	16.64	5.35				
*Significant at.05 alpha level						

Table 4: Dependent t-test Analysis of Operating System Skill on User Satisfaction with Library Services

Data analysis as presented in table 4 above shows a calculated t-value of 6.45 and a critical t-value of 1.96 when compared at 0.05 significance level with 133 degrees of freedom. Since the calculated t-value is greater than the critical t-value, the null hypothesis which stated that there is no significant influence of operating system skill on user satisfaction with library services is rejected, while the alternative hypothesis is retained. This implies that library operating system skill has significant influence on user's satisfaction with library services.

Hypothesis 2: There is no significant influence of desktop support skill on user satisfaction with library services

Table 5: Dependent t-test Analysis of Desktop Support on User Satisfaction with Library Services

Variables	Ā	SD	Ν	t-cal	df	t-cri
Desktop Support Skill	13.77	5.63	129	7.02*	133	1.96
User Satisfaction with Library Services	16.84	5.35				
*Significant at 05 alpha level						

Significant at.05 alpha level

The result, as shown in the table 5 above shows a calculated t-value 7.02 and a critical t-value of 1.96 when compared at. 05 level of significance and 133 degrees of freedom. Since the calculated t-value is greater than the critical t-value, the null hypothesis which stated that there is no significant influence of desktop support skill on user satisfaction with library services is rejected, while the alternative hypothesis is retained. This shows that the desktop support skill has significant influence on user satisfaction with library services.

Hypothesis 3: There is no significant influence of data storage skill on user satisfaction with library services.

Table 6: Dependent t-test Analysis of Data Storage Skill on User Satisfaction with Library Services

Variables	Ā	SD	Ν	t-cal	df	t-cri
Data Storage Skill	12.32	6.45	129	9.03*	133	1.96
User Satisfaction with Library Services	13.15	3.35				
*Significant at 05 alpha level						

Significant at.05 alpha level

Data analysis as presented on the table 6 above indicates that a calculated t-value of 9.03 and a critical t-value of 1.96 at .05 alpha level and 133 degrees of freedom. Since the calculated t-value is greater than the critical t-value, then the null hypothesis which stated that there is no significant influence of data storage skill on user satisfaction with library services is rejected, while the alternative hypothesis is retained. This shows that data storage skill has significant influence on user satisfaction with library services.

DISCUSSION OF FINDINGS

The finding of this study shows that operating system skill in the library has significant influence on user satisfaction with library services. The findings deduce that library operating system skill could encourage users to utilize the library and also derive satisfaction from its services, because it will guarantee the users of convenient use of the library information technological facilities with full satisfaction from its services.

The findings of this study also revealed that desktop support skill in the library has significant influence on user satisfaction with library services. This means that desktop support skill in the library influences the user satisfaction with library services. In the sense that, any problems that may occur with the library information technology facilities will be easily rectified; and this may enhance the interest of the user to the patronage of the library and also derive total satisfaction from its services.

Finding of the study also revealed that data storage skill in library has significant influence on user satisfaction with library services. This means that data storage skill in the library influences the user satisfaction with library services. The finding concludes that data storage skill could encourage library users to utilize the library resources and also enjoy full satisfaction of the usage.

SUMMARY

This study determined the influence of information technology skills on user satisfaction with library services in Akwa Ibom State Electronic Library. Three research questions and three hypotheses were formulated as a guide to the study. The researcher designed questionnaire title "Information Technology Skills and User Satisfaction with Library Services Questionnaire (ITSUSLSQ)" was used for data collection. The data gathered is analyzed using percentage, mean and standard deviation; and dependent t-test was used to test hypotheses. Finding of the study shows that the operating system skill, desktop support skill and data storage skill have significant influence on user satisfaction with library services.

CONCLUSIONS

Globally, library are nowadays using information technology to automate a wide range of administrative and technical processes, such as library network, database, automation, information system and provide better services for their user satisfaction. In the library, an information technology facility helps in performing operations and services effectively. The application of information technology and its accessibility facilitate easy retrieval of information, creative expression, information processing, and proper management.

More so, operating system skill in the library has significant influence on user satisfaction with library services. Likewise, desktop support skill has great influence on user satisfaction with library service. Also, data storage skill has significant influence on user satisfaction with library services.

RECOMMENDATIONS

According to the findings of this study, the researcher recommended as follow:

- Library management should try to upgrade and maintain their operating system, and make it users friendly and easy to access for their users.
- Authorities of the library should try as much as possible to ensure that capable and qualified hand is employed as desktop support Technician/Engineer.
- Quality and effective data storage facilities should be properly put in place for the usage of their users.

REFERENCES

- 1. Abdulganry, A.O. (2002). Application of information technology in libraries: a case study of selected colleges of education libraries in Nigeria. *Middle- Belt Journal of Library and Information Science*, 2 (1 & 2) 16-24.
- 2. Adetoro, A. (1980). Research Techniques for Project. Zaria: Gaskiya-Corporation Ltd. 86p.
- 3. Ahmed, P. (2010). Impact of information and communication technology in library management and maintenance. *Journal of Information and Communication Technology*. 3(2): 67-68.
- Aina, L.O. (2003). Research in information sciences: an African perspective. Ibadan: Sam Adex Printers. pp. 32–35.
- 5. Aina, L. O. (2004). Library and information science text for Africa. Ibadan: Third world information services Ltd.
- 6. Ayo, C.K. (2001). Information technology: *Trends and application in science and business*. Lagos: Concept publications.
- 7. Biddiscombe, R.W. (2001). The development of information professionals need for Internet and IT skill at the university of Birmingham. *Program. Electronic Library and Information Systems*, *35* (2), *157-166*.
- Bloehdorn, S.; Gorlitz, O.; Schenk, S.; & Volkel M. (2006). Tag semantics for hierarchical file systems. In proceedings of the 6th International conference on knowledge management (I-KNOW 06), Graz, Austria, September 6-8, 2006. URL http://semfs.ontware.org/pubs/2006-09-iknow2006-tagfs.pdf
- 9. Champa, N.K. & Jayasundara, C.C. (2015). Development and validation of the electronic information resources usage scale. *10th International CALIBER*.
- 10. Cholin, V.S. (2005). Study of the application of information technology for effective access to resources in Nigerian university libraries. *The International information & library review*, 37: 189-197.
- 11. Deitel, H., Deitel, P., & Choffne, D. (2004). Operating systems. 3rd edition, Prentice Hall.
- De Silva, P.Y. & Ganegoda, G.U. (2016). New trends of digital storage in DNA. Hindawi publishing corporation; *BioMed Research International Volume*, Article ID 8072463. <u>http://dx.doi.org/10.1155/2016/8072463</u>
- 13. Development and management in libraries. *Information science and technology*. New York: Macmillan. No. 66: 25–43.
- Emuakpor, A.O.S. (2002). The Impact of information technology in collection *for library schools in Africa*. Madu, E.C. et al. (ed) Ibadan: Evi-Coleman.
- 15. Engelhardt, K. (2008). Secure Data Storage White Paper Storage Technologies.
- 16. Grimes, R. (2004). Revolutionary file storage system lets users search and manage file based on content. *Microsoft Developer Network Magazine*, 19 (1). URL <u>http://msdn.microsoft.com/msdnmag/issues/04/01/winFS/print.asp</u>
- 17. Halman, M. (2005). Africa connected *First Monday*, *3.4* <u>http://firstmonday.org/issues/issue34/hall/index.html</u> <u>Accessed 10/9/2006</u>.

- 18. <u>http://dx.doi.org/10.4236/oalib.1100451</u>
- 19. http://www.albion.com/microsoft/findings-2.html
- 20. https://www.quora.com/What-does-Desktop-Support-mean
- 21. ibomelibrary.org
- 22. Ijiekhuamhen, O. P., Aghojare, B. & Ferdinand O. A. (2015). Assess users' satisfaction on academic library performance: a study. *International Journal of Academic Research and Refliction*. 3(5), 66-77.
- 23. Iwhiwhu, B. E and Okorodudu, P.O. (2012). Public library information resources, facilities and services: User satisfaction with Edo State Central library, Benin City, Nigeria. *Library Philosophy and Practice*.
- 24. Jansen, M. (2000). African Internet Status. Available at <u>http://www.3.sn.apc.org/Africa/Afstat.htm</u>. Retrieved on the 26th November, 2013.
- 25. Kassahun, A., Beulens, A. and Hartog, R. (2006). Providing Author-Defined state data storage to learning objects, *Educational technology & society* 9 (2), 19-32.
- 26. Khodanpur, B.I. (2007). Introduction to operating systems. Common Paper for BA/B. Comm/ B.Sc.
- 27. Letseka, M. (2001). Information and communication technology (ICT) initiatives at the university of Forte Hare: cure or plague? *Knowledge, Technology, and Policy.* 14 (1) pp. 67-78
- 28. Monty, L. (2000). The level of internet access and ICT training for health information professionals in Sub-Sahara Africa. *Health Information and Libraries Journal* 25 (2), 175-185.
- 29. Nwalo, K. I.N. (2003). Fundamentals of library practice: *A manual on library routines*. Ibadan: Sterling-Horden Publishers Ltd.
- 30. Obaje, M. (2014). Relationship between ICT skills and information Service Delivery among University Library Personnel of North Central Zone, Nigeria. Unpublished Ph.D. Seminar, University of Maiduguri, Department of Library and Information Science.
- 31. Obeka, S.S. (2011). Panacea for Science Education Research, Ahmadu Bello University Press, pg. 103.
- 32. Oduwole, A.A. (2005). Information technology skill acquisition and utilization by librarians as correlates of job performances in university and research libraries in Nigeria, unpublished Ph.D. Seminar, LARIS University of Ibadan, Ibadan.
- 33. Ogunsola, L.A. (2004). Nigerian university libraries and the challenges of globalization: The way forward. *Electronic Journal of Academic and Special Librarianship.* Vol. 5 (2-3).
- 34. Sackett, P.R, Zedeck, S., & Fogil, L. (2000). Relations between measures of typical and maximum job performance. *J. Appl. Psychol.* 73(3), 82-86.
- 35. Sass, A.M. (2001). University libraries and scholarly communication. *Washington*, D.C. Association of Research Libraries, 89
- 36. Stein, L. (2005). Stupid file systems are better. In HOTOS'05: Proceedings of the 10th conference on Hot Topics

in Operating Systems (Berkeley, CA, USA), USENIX Association, pp. 5-5.

- 37. Storey, C. (2005). The impact of information technology on management and organization: the case of Hong Kong polytechnic university library. *Library Management*. 16 (2) p. 22-33.
- Thakuria, P.K. (2007). Concepts of quality in library services: an overview. 5th Convention Planner-2007. Gauhati University, Guwahati, December 7-8, P.412-420.
- 39. Thong, J.Y.L & Yap, C.S. (1996). Information system effectiveness: a user satisfaction approach. *Information Processing and Management*. Vol. 32 (5), p. 601-10.
- 40. Tripathi, A. (2014) Web operating systems. Open Access Library Journal, 1: e451.
- 41. Venkataraman, P. and Rao, C. (1998). Impact of information technology on library operations and services. In B. Satyanarayana (eds.). *Information technology: issues and trends*. New Delhi: Cosmo Publication.
- 42. Zeithman, V. and Bitner, M.J. (2000). Service marketing: integrating customer focus across the firm. McGraw-Hill.