Personal Characteristics and Information Communication Technology Skills of University Academic Librarians in South-East Nigeria

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Abstract

This study was focused on the relationship between the personal characteristics and Information Communication Technology (ICT) skills of the academic librarians in South – East Nigeria. Questionnaire was used for data collection from 130 academic librarians from nine south-east Nigerian Universities. A survey research design was used for the study. The population of the study was 130. Mean and correlation statistics were used for data analysis. The major findings include that as the librarians advanced in the working experience, their ICT skills possessed decrease and as academic librarians are getting old on the job, the need for their ICT Skills training need raised. The study recommended among others, that in-service training should be provided for university academic librarians by the university of authorities.

Key words: ICT, skills, academic, librarian, characteristics, universities.

Introduction

Information and communication technologies (ICTs) are a diverse set of technological tools and resources used to communicate and create, disseminate, store, and manage information (Blurton 1999). ICTs encompass a range of rapidly evolving technologies and they include telecommunication technologies (telephony, cable, satellite, TV and radio, computer-mediated conferencing, video conferencing) as well as digital technologies (computers, information networks (internet, World Wide Web, intranets and

extranets) and software applications (Chisenga, 2006).

The key purpose of any library is to provide a quality services access to relevant information (Buckland, 1992), computers, information networks and software applications. These technologies are making it possible for libraries to provide a variety of library and information services to clientele. All the functions and services that University academic librarians used to provide manually can now be provided through the use of ICTs which can do things better and faster. Some of the opportunities which ICTs afford the libraries are organization of information for users; capacity building; management information system; digital libraries; resource sharing/document delivery. (Haleso 2007 and Chisenga 2006).

University Academic librarians provide support to members of an academic community, such as students, researchers and lecturers. Typically, they also manage, organise, evaluate and disseminate information. They are will often be responsible for a specific academic subject area or a particular function, such as resource ordering, loans, special collections and ICT systems. They are also involved in facilitating and supporting learning by teaching information retrieval skills to students and staff and the researchers in the university Community. Academic librarians spend a considerable amount of time working with electronic community resources and are increasingly involved with database management and web page development therefore; they need to be trained to acquire the expected skills needed.

University academic libraries require ICT skill to be effective in the jobs. Factors that influence the possession of ICT skills include among socio-economic and personal characteristics such as office rank, sex / gender and experience, availability of information and communication technologies. There is need for all developed and developing nations of the world to take ICT as tools that aid the enhancement of job performance of the library staff (Rosenberg 2005; Mphidi 2004; Chuene, 2000).

From the global point of view, it appears that there is consent that a relationship exists between use of information and communication technologies and job enhancement of libraries (Ajayi, 2001) Stephen (1995) submits that the use of information technology provides significant benefits in work measurement, cost reduction, productivity improve-ment and better services to customers and /or clients. Actually, it is the availability of the ICTs facilities that makes the enhancement of library use possible and it is their use that makes performance attainable. Therefore, the combined effect of availability of information,

personal characteristics and communication technologies that can enhance the job performance of the University academics librarians, so, there is need for all the university academic librarians to realise ICT as tools that helps the enhancement of their job performances. This cannot be achieved unless university academic librarians realise the tremendous role which information and communication technologies (ICTs) could play to enhance effective services. Therefore, their receptive to training, skill acquisition and subsequent effective role performance depend to a large extent on personal characteristics (Tenant, 1995).

University libraries in Nigeria attempted to automate library functions as far back as 1970s; and in 1990s, the attempt still continued. The TINLIB software was introduced in leading academic libraries including those of the University of Ibadan and Ahmadu Bello University Library (Omoniwa, 2001), but due to some technical and organisational problems, no single academic library in Nigeria in general and in the South-western Nigeria in particular uses the TINLIB software today. Obajemu and Ibegwam (2006) observed that libraries in Nigeria are still on the race to make their services totally ICT- based. Most University academic librarians in Nigeria skill struggle with manual library operation method/system. Consequently, library users show dissatisfaction and complain of poor information services delivery by the University librarians.

Objectives of the Study
The general objective of this research work was investigate the relationship between personal characteristics and ICT skills possessed by University academic librarians in south-eastern Nigeria. Specifically the study
- determined the extent to which librarians' personal characteristics correlates with their ICT skills possessed.
- correlated academic librarians' personal characteristics with their ICT training needs.
- determined factors militating against effective ICT training of academic librarians in the study area.

Research Questions:
The following research questions were raise to guide the study:
1. What are the correlation between the personal characteristics and ICT skills possessed by the university academic librarians?
2. What are the correlations between personal characteristics and ICT training needs of the university academic librarians?
3. What are the factors militating against effective ICT skill training

needs of the university academic librarians?

Methodology

Design and Area of study: The study area was a survey. The area of the study is the south-east Nigeria. There are five (Enugu, Ebonyi Anambra, Imo and Abia) states in the area. It has nine universities libraries (4 federal and 5 states universities)

Population for the Study: The population for this study comprised all the nine university libraries (five state and four federal university libraries) in south-east Nigeria. The total population of academic librarians was 130 All the 130 librarians were used for the study because of the small size of the population. There was no sampling.

Instrument for Data Collection: A well structured questionnaire based on the four point scale instrument to a very great extent=4; to a great extent=3; to a little extent=2; and no extent=1 was used for data collection. It was validated by two experts in the department of Library and information science.

Method of Data collection and analysis: The administration of the instrument was done by the researcher and two trained assistants. This was to ensure a high return rate of the questionnaires. A total of 130 copies of the instruments were administered but 120 copies were returned back. These were used for data analysis. The data were analysed through mean and correlation statistics. All computations were done using Statistical Packages (SPSS).

Findings of the Study

A. As the University Academic librarians advanced in their working experiences the extent of their use of ICT skills decreased (see Table 1)

B. As the University Academic Librarians are getting old on the job, the need for their ICT skills decreased (see Table 2)

C. Respondents indicated that 18 items in the questionnaire are problems encountered by the University librarians (see Table 3)

Table 1: Correlation of the extent of ICT skills possessed and the University Academic Librarians' Personal Characteristics in South – Eastern Nigeria.

S/N	ICT skills	Sex	Age	Marital Status	Educa tional	Rank	Work experi ence
1	Computer basic	-.053	.074	.046	.208*	.030	-.184*
2	Networking	-.127	.064	-.020	.084	-.049	-0.05
3	Bibliographic Format	-.150	-.076	.108	-.081	-.063	-.209*
4	Data analysis	0.04	0.02	0.02	-0.07	-0.11	-0.23*
5	Indexing server	-0.18*	0.09	0.04	-0.13	-0.18	-0.12
6	Digital libraries	-0.17	0.01	-0.09	-0.15	-0.08	-0.14
7	Web Servers Tomcatted	-0.18*	0.15	0.11	-0.16	-0.19*	-0.16
8	Hardware troubleshooting	-0.13	0.12	0.05	-0.11	-0.05	-0.15
9	Web designing	-0.02	0.03	-0.07	-0.06	-0.08	-0.19*
10	Barcode technology	-0.14	0.15	0.07	0.01	-0.06	0.12
11	Virtual electronic reference service	-0.03	0.03	-0.01	-0.06	-0.03	0.19*
12	Data conversion utilities and copy cataloguing	-0.03	0.02	-0.01	-0.05	0.05	-0.21*
13	Inter library loan systems	-0.09	0.11	-0.03	-0.03	0.16	-0.14
14	Graphics soft ware	-0.16	0.08	0.03	-0.10	-0.01	-0.14
15	Desktop publishing	-0.08	0.03	-0.03	-0.04	0.06	-0.21*
16	Electronic document delivery	-0.09	-0.06	-0.02	-0.04	0.07	-0.13
17	File format	-0.09	-0.03	-.0.04	-0.02	0.04	-0.17
18	Digitization	-0.6	0.09	0.10	0.05	0.04	-0.17
19	Operating system	0.02	-0.04	-0.06	-0.02	0.09	-0.17
20	Data compression	-0.13	0.12	0.05	0.00	0.11	-0.05
21	Library Management systems	-0.02	-0.12	-0.12	-0.00	0.07	-0.00
22	Spreadsheets	0.07	-0.06	-0.018*	0.03	0.03	0.24*
23	Library electronic tools	-0.08	-0.10	0.18*	0.00	0.08	0.05
24	Operating system	0.04	-0.07	-0.10	0.07	0.03	-0.18*
25	Presentations	-0.10	0.09	0.11	0.01	-0.07	-0.11
26	Searching online database	-0.09	0.07	-0.00	0.15	0.12	-0.07
27	Web browsers	-0.19*	0.14	0.14	0.05	-0.02	-0.13
28	Internet	-0.09	0.05	0.15	-0.07	-0.10	-0.20*

*Significant relationship

Table 1 shows that there was significant but negative correlation between the working experience of the university academic librarians and their computer basic skill (r - 184), bibliographic format skill (r = 209),data analysis skill (r = -0.230), web designing skill (r= -109), virtual electronic reference service skill (r = -0.190) data conversion utilities and copy cataloguing skill (r = - 0.21), desktop publishing skill (r= - 0.21) and internet skill (r= - 0.20) .

Table 1 further shows that significant correlation also existed between sex and their indexing servers (r= -0. 18), web servers tomcatted (r= o.13) and web browsers (r=0.09) skill significant correlation also existed between their educational qualification and computer basic skill(r = -0.20).

Table 2: Correlation of the extent of ICT skill training needs and the University Academic librarians' Personal Characteristics.

	ICT skill training needs	Sex	Age	Marital Status	Educa tional Level	Rank	Work experie nce
1	Computer basic	-0.08	-0.17*	-0.02	-0.12	-0.13	-0.21*
2	Networking	0.04	0.06	-0.01	-0.07	-0.07	-0.28*
3	Bibliographic Format	0.02	0.06	0.05	-0.02	-0.03	-0.30*
4	Data analysis	-0.15	0.22*	0.15	-0.02	-0.06	-0.21*
5	Indexing server	-0.13	0.18*	0.22*	-0.06	-0.14	-0.19*
6	Digital libraries	-0.08	0.00	0.03	-0.10	-0.11	-0.27*
7	Web Servers Tomcatted	-0.08	0.09	0.06	-0.04	-0.11	-0.21*
8	Hardware troubleshooting	-0.12	0.23*	0.17	0.06	-0.10	-0.11
9	Web designing	-0.06	0.16	0.01	-0.01	-0.11	-0.12
10	Barcode technology	-0.04	0.17	0.13	-0.05	-0.10	-0.05
11	Virtual electronic reference service	-0.04	0.17	0.13	-0.05	-0.10	-0.05
12	Data conversion utilities and copy cataloguing	-0.05	0.09	0.15	0.03	-0.02	-0.19*
13	Inter library loan systems	0.03	-0.05	-0.02	0.02	0.08	-0.18*
14	Graphics soft ware	-0.17	0.22*	0.22*	0.14	0.04	-0.12
14	Desktop publishing	-0.15	0.08	0.02	-0.02	-0.10	-0.29*
15	Electronic document delivery	-0.12	0.11	0.09	-0.07	-0.10	-0.26*
16	File format	-0.11	0.14	0.18*	-0.08	-0.15	-0.24*
17	Digitization	-0.11	0.14	0.18*	-0.08	-0.15	-0.24*
18	Operating system	-0.13	0.09	0.07	0.07	-0.04	-0.20*
19	Data compression	-0.07	0.06	0.05	0.01	-0.08	-0.25
20	Library Management systems	-0.06	-0.09	-0.10	0.11	0.08	-0.01

21	Spreadsheets	-0.03	0.09	0.04	0.00	-0.02	-0.23*
22	Library electronic tools	-0.11	-0.03	-0.12	0.09	0.13	0.01
23	Operating system	0.06	0.02	0.01	-0.09	-0.13	-0.32*
24	Presentations	-0.16	0.05	0.00	-0.02	-0.08	-0.26*
25	Searching online database	-0.12	0.05	0.07	-0.04	-0.15	-0.30*
26	Web browsers	-0.10	0.02	0.03	-0.06	-0.20*	-0.27*
27	Internet	-0.08	0.20*	0.19*	-0.08	-0.14	-0.22*
28	Word processing	-0.07	0.01	0.02	-0.16	-0.13	-0.26*

*Significant relationship

Table 2 shows that was significant positive correlation between the age of the university academic librarians and computer basic skill training need ($r = -0.17$), data analysis skill training need ($r= -0.220$), indexing server skill training need ($r= -0.180$), hardware trouble shooting skill training need ($r=.23$), graphic software skill training need ($r=0.22$) and internet skill training need ($r =-20$). It is also evident from Table 2 that significant negative correlation existed between the working experience of the university academic librarians and computer basic skill training need ($r = -0.21$), networking ($r= 0.28$), bibliographic format ($r= 0.30$), data analysis ($r= 0.21$), indexing server ($r= 0.19$), inter library loan system ($r = 0.18$), internet ($r = 0.22$) and word processing ($r= 0.26$)etc. Age and working experience are related.

Table 3: Means of various possible problems confronting University academic Librarians on ICT training needs

S/N	Problems	Mean	Std. Deviation
1	Financial problems	3.56*	0.82
2	Library professionals	2.42	1.10
3	Higher authority is not interested to send their librarians to upgrade their ICT skills.	2.88*	1.11
4	Lack of professional recognition	2.78*	1.03
5	Limited opportunities	2.89*	1.03
6	Digital gap issues	3.03*	1.02
7	Poor internet connectivity	3.19*	0.94
8	Inadequate ICT facilities	3.17*	0.96
9	Poor power electricity	3.30*	0.95
10	Technical Know how	3.17*	0.85
11	National and organizational priority	3.22*	0.82
12	High cost of ICT equipment	3.32*	0.80
13	Lack of trained man-power with required skills for library automation	3.13*	0.93

14	Management problems	3.13*	0.91
15	Low qualities of ICT facilities	2.98*	0.98
16	Computer breakdown	3.02*	0.99
17	Viral infection	2.84*	1.08
18	Frequent change in ICT	2.78*	1.04
19	Space	2.34	1.05
20	Theft	2.34	1.07
21	Absence of technical support	2.76*	1.03

*Serious

Table 3 shows that 18 items were acceptable as problem confronting the university academic librarians on ICT training needs. These means ranged from 2.76-3.56 while three items were not seen as a problems.

Discussion of findings: The study shows personal characteristics and information communication Technology skills of university Academic librarians in South-East Nigeria. These Findings imply that as the librarians advanced in their working experience, their ICT skills possessed decrease. This is possible since ICT innovations are dynamic and not static. This call for the training and re-training of the university librarian in order to keep

The above finding corroborates the finding of Behu *et al* (2007), in his study, the discovered and expressed the need for the university librarians to undergo ICT training program or in servicing-training in order to improve their skills at different tasks associated with their job due to ICT development.

This finding is in line with that of Mahmood (2006). In his study, he affirmed that generally, majority of the academic librarians lacked the required skills to operate a myriad of ICT facilities as they advanced in their working experience, due to the current modern ICT development they need to be trained therefore, cognate educational qualification will go a long way in improving the computer basic skills of the University librarians.

The finding of this study also revealed that as the university academic librarians in south – east Nigeria are getting old on the job, the need for their ICT skills training needs also increased due to the dynamic nature of ICT innovations. It also revealed that increase in working experience means a corresponding increase in age. As the University academic librarians advanced in working experience, the need to acquire new / improved their ICT skills become necessary for effective performance on their job. These findings support the findings of Nabuyanda (2008) that as

academic librarians are advanced in working experience, there is a need to upgrade their ICT knowledge due to day to day ICT development. This is consistent with the findings of Behu *et al*(2007), which says that the academic librarians require new skills and competencies that suitable for discharging their duty, since ICT is a dynamic in nature. Therefore, the University academic librarians in South – east Nigeria need a host of skills in order to perform up to the required standard under the ICT era.

The findings in the table three showed many problems that were confronting the University academic librarians on ICT training needs in South-East Nigeria. These are poor power supply; poor ICT quality; managerial problem; inadequate security and financial problems. The problem of inadequate and ineffective poor power supply conforms with Nwokedi (2009), who stated that factors militating against effective I C T skills training needs of the University academic librarians in South – East Nigeria include lack of fund; ineffective power supply; authority not interested in sending their librarians to upgrade their ICT skills; management problems. Behu (2007); In his studies, discovered lack of fund; constant Computer breakdown, poor electricity supply; as major problems confronting effective ICT skills Training needs of University academic librarian in South – east Nigeria The government

through the University authorities should give priority to the development of ICT Training in each of the Universities in South – east Nigeria.

Conclusion
On the basis of the findings of the study, it is possible to conclude that correlation did exist between working experience and the ICT skill possessed by the university academic librarians in the study area A similar correlation also existed to a great extent, between age working experience; and ICT skill training needs of the university academic librarians. All the identified constraints to ICT skill training needs were perceived as being serious by librarians. The major factors militating against effective ICT training needs were poor power supply, poor ICT quality, management problems, inadequate security and financial problems. To eradicate these problems for the purpose of effective ICT skills acquisition by the university academic librarians and effective performance of their role – expectation, the governments and the university authorities should provide sufficient funds to purchase necessary facilities. Besides, adequate security should be provided.

Recommendations
1. The government and the university authorities should

provide sufficient funds to purchase necessary ICT facilities

2. The government should help the university authority to provide in-service training for the university academic librarians.

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