Factors Influencing the Adoption and Use of Information Communication Technologies (ICT) Among Librarians: A Study of Public Libraries in South West Nigeria

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Abstract

The adoption of information communication technologies has made it possible for public libraries to deliver numerous services to members of the community in which they are located. However, little research has addressed issues relating to adoption and use of ICTs by librarians in public libraries in South West Nigeria. Using the Unified theory of acceptance and use of technology, this study examined the factors that influence adoption and use of ICTs among librarians in public libraries in South West, Nigeria. The study adopted the census method. Data was collected by means of a structured questionnaire and analyses of data was done using tables, bar charts and percentages. Findings revealed that performance expectancy, effort expectancy, and social influence were significant factors that influenced the use of ICTs by librarians in the public libraries studied. In the case of facilitating conditions, organizational and technical facilities to support librarians' ICT use were not available. It was recommended that facilitating conditions such as relevant infrastructure, stable power supply, support from the stakeholders of the libraries, support from superior officers, availability of quality and frequent training programs, availability of professional ICT staff, access to latest information communication technologies and reliable internet that will encourage the effective use of ICTs be made available.

Keywords: *ICT, Library Automation, Librarians, Public Libraries*

1.1   Introduction

Information and communication technology (ICT) generally refers to the diverse set of technological tools and resources used to create, store, disseminate, and manage information (Yadav & Mehta, 2014). The shift from the traditional system of servive delivery to the application of various forms of technology is refered to as library automation. Boateng, Agyemang &

Dzandu (2014) also define library automation as the application of information communication technologies (ICTs) in the day to day operations of the library. Library automation is synonymous to library mechanisation and library digitisation.

According to Ikenwe & Adegbilero-Iwari (2014), public libraries are libraries that are established and sustained by public funds. They satisfy the informational, educational and recreational needs of the people in the

community regardless of nationality, age, sex, religion, language, status, political inclination and educational attainment. Public libraries are also considered as agents of social, political and cultural change in any society and provide a wide range of readership than any other type of library.

1.2 Study Objective

The main objective of this study is to examine the factors that influence the use of automated systems by librarians of public libraries in South West, Nigeria.
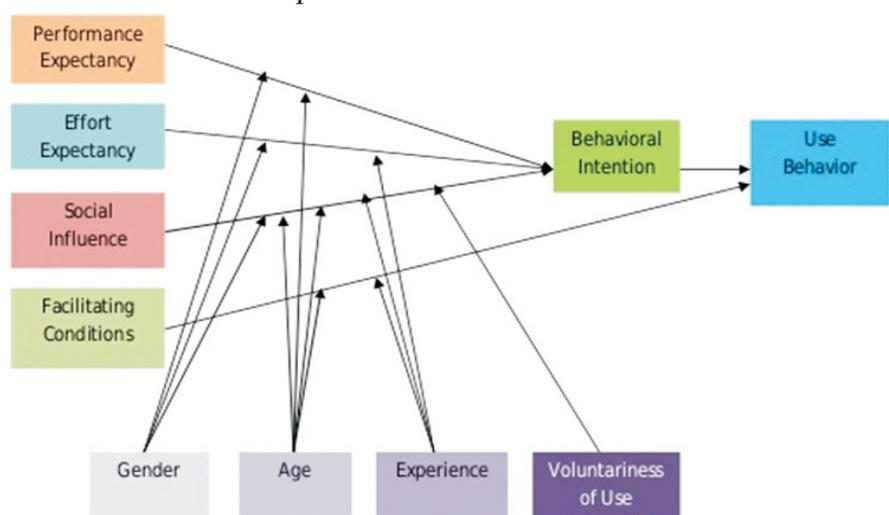
2.1 Review of Related Literature

Many libraries around the world have put in a lot of funds into adopting ICTs in order to improve the delivery of services to their numerous clients. Public libraries are not left out of these development. Since the beginning of automation in Nigerian libraries, its importance has been recognized and librarians in many libraries have embraced the use of ICTs in rendering services to clients. However, observing the activities of public libraries in more advanced countries of the world it is obvious that librarians in Nigerian public libraries are lagging behind in embracing ICTs (Eze, 2012). Although several studies such as Eze (2012); Eze (2013); Emojorho (2011); Issak (2011) have enumerated the positive contributions of adopting ICTs in public libraries in Nigeria, the factors that influence its adoption and use

remains unknown. Most of the studies also do not adopt any theoretical framework. The present study seeks to address this lacuna.

2.2 Theoretical Framework

A theoretical framework is a valuable tool that supports and directs research (Grant &Osanloo, 2014). It defines the theory that explains why the research problem under study exists. Various models and theories have been proposed to access the adoption and use of information communication technology. For the purpose of this study, the Unified Theory of Acceptance and Use of Technology (UTAUT) has been chosen to underpin the study. This is because it *is the most current technology acceptance model and* has been very useful for researchers who experience difficulties with making a good choice of an ideal model in the midst of several models (Venkatesh, Morris, Davis & Davis, 2003).

The UTAUT theory identifies four major constructs which determine usage and behavioural intentions of ICTS. These include: Performance Expectancy (PE); Effort Expectancy (EE);
Social Influence (SI) and Facilitating Conditions (FC). *The UTAUT model is presented in Figure 1 below:*

Figure 1: UTAUT Model (Source: Venkatesh et al., 2003)

Venkatesh et al., 2003 describes the UTAUT model and its constructs thus:

Performance Expectancy: "Is the degree to which an individual believes that using a system will enhance performance on a job

Effort Expectancy: "Is the degree of ease associated with the use of the system"

Social Influence: The individual's perception that a person who is important to him/her thinks s/he should use the system.

Facilitating Conditions: It refers to the degree to which an individual believes that an organisational and technical infrastructure exists to support the use of the system.

Behavioural intention is a person's subjective probability that he or she will perform the behaviour in question.

The constructs discussed above are moderated by gender, age, experience, and voluntariness of use. The moderating variables are defined below.

Age: the degree to which the age of an individual affects their use of a new system;

Gender: the extent to which being a female or male makes it easy to utilise a new system;

Experience: the degree of use over time with gaining experience in the use of a system; and

Voluntariness: the degree to which the system is used voluntarily.

2.3 Application of the Unified Theory of Acceptance and Use of Technology (UTAUT)

Since its inception, many studies have applied UTAUT to explain technology acceptance under various contexts. Tibenderana, Ogao, Ikoja-Odongo and Wokadala (2010) applied UTAUT in a study on measuring levels of end-users' acceptance and use of hybrid library services. The study collected 445 usable data from university library end-users using a cross-sectional survey instrument. The findings revealed that 'relevance' and 'social influence' have significant effects on intentions to use e-library services. In addition, the results also revealed that in Uganda, university communities are motivated to use electronic library services due to social demands, relevancy of services, available facilitating conditions and benefits they expect from the services.

Kocaleva, Stojanovic and Zdravev (2015) applied the UTAUT model to understand teaching staff acceptance and use of eLearning system. The findings revealed that effort expectancy and facilitating conditions have a very strong effect on teaching staff intention to use the e –learning system. Also, Oye, Lahad, and Rabin (2011) in a study of ICT acceptance and use for teachers in higher education institutions applied UTAUT. Findings revealed that performance expectancy was the most influential construct that determined the acceptance and use of ICT by the teachers in higher education institutions.

In addition, in testing the factors that influence students' acceptance and use of technology in Carnegie Mellon University, Pittsburgh, Pennsylvania, in the United States of America, Akbar (2013) adopted the UTAUT method. He discovered that performance expectancy, effort expectancy, facilitating conditions and attitude towards using technology were important factors that determined the acceptance and use of technology. Moderating variables such as age, gender and voluntariness of use also had an influence on ICT use.

Furthermore, Kaba and Toure (2014) in another study applied the UTAUT model in understanding behavioural intention to use social networking site by young people in the least developing country. Findings showed that performance expectancy had a positive effect on behavioural intention but the interaction of performance expectancy, gender, and age was insignificant.

3.0 Research Methodology

There are six states in South West Nigeria. Three states (Lagos, Oyo and Ogun) were purposively selected to partake in this study. The headquarters of the public libraries in each state were the focus of the study. Data was collected through the use of a questionnaire. The questionnaire was preferred because it is relatively quick to gather data from a large number of people and at a moderately low cost.

The target population of this study were professional and paraprofessional librarians in Oyo State Library Board (Oyo State), Simeon Adebo Library (Ogun State) and Lagos State Library Board usually referred to as Ikeja Old Secretariat library (Lagos State).

The total number of librarians in the three libraries studied was 35. A census of librarians was used in this study. Data was analysed using tables and figures (bar graphs). Findings from the study were interpreted and discussed based on themes of the study. The relative number of the population is shown in table 1.0 below:

Table 1: Relative distribution of the population

LIBRARIANS (N=35)	Oyo State (OYSLB)	Ogun State (SAL)	Lagos State (IOSL)	Total
Professional Librarians	5	5	6	
Paraprofessional Librarians	10	5	4	
Total Number of Librarians	**15**	**10**	**10**	**35**

Table 2: Response rate for professional and para-professional librarians (N=35)

Public Libraries	Frequency	% Response
Ikeja Old Secretariat Library (IOSL) (n=8)	8	80%
Simeon Adebo Library (SAL) (n=7)	7	70%
Oyo State Library Board (OYSLB) (n=10)	10	67%
Total	**25**	**71%**

The table above reveals that out of 35 respondents that were meant to be involved in the study, only 25 were on ground when the study was conducted. This resulted in a response rate of 75%. Data was analysed using tables and figures (bar graphs). Findings from the study were interpreted and discussed based on themes of the study.

4.1 Result

Factors influencing the use of information communication technologies in public libraries in South West, Nigeria.

Table 3: Performance Expectancy

I believe that using ICTs makes my performance on the job better									
Library	S/A	%	A	%	D	%	SD	%	Total	%
IOSL	6	75	2	25	0	0	0	0	8	100
SAL	7	100	0	0	0	0	0	0	7	100
OYSLB	8	80	2	20	0	0	0	0	10	100
Total	21		4		0		0		25	100

Data in Table 3 shows that 21out of 25 respondents strongly agreed that ICTs increased their productivity at work while 4 agreed. None of the respondents disagreed. The percentages of responses by the selected libraries who seriously agreed were: IOSL

(75%), SAL (100%) snf OYSLB (80%).

Effort Expectancy
Respondents were asked to state if they considered ICTs easy to use or not. Responses are presented in table 4 below.

Table 4: Effort Expectancy

ICTs are very easy to u se										
Library	S/A	%	A	%	D	%	SD	%	Total	%
IOSL	5	62.5	2	25	1	12.5	0	0	8	100
SAL	4	57.1	1	14.3	2	28.6	0	0	7	100
OYSLB	6	60	3	30	1	10	0	0	10	100
Total	15		6		4		0		25	100

Findings revealed that out of the 25 respondents, 15 strongly agreed that ICTs were easy to use, 6 agreed, 4 disagreed while none of the respondents strongly disagreed. The percentage of respondents from the selected libraries who seriously agreed were represented thus: IOSL (62.5%); SAL

(57.1%) and OYSLB (60%).

Social Influence
Respondents were asked to state if persons who were important to them believe they should use ICTs or not. The responses are presented in table 5 below.

Table 5:   Social Influence

Persons who are significant to me believe that I should use ICTs										
Library	S/A	%	A	%	D	%	SD	%	Total	%
IOSL	4	50	2	25	2	25	0	0	8	100
SAL	4	57.1	2	28.6	1	14.3	0	0	7	100
OYSLB	5	50	3	30	2	20	0	0	10	100
Total	13		7		5		0		25	100

The findings presented above showed that 13 respondents strongly agreed that persons who are significant to them believe that they should use ICTs. Thirteen (13) respondents strongly agreed, 7 agreed while 5 disagreed. Those who strongly agreed in the libraries

are: IOSL 4 (50%); SAL 4 (57.1%) and OYSLB 5 (50%).

Facilitating Conditions
An enquiry into how facilitating conditions influenced the use of technology was made. Findings are presented in table 6.

Table 6:   Facilitating Conditions

Organisational and technical facilities are available to support my use of ICTs										
Library	S/A	%	A	%	D	%	SD	%	Total	%
IOSL	0	0	1	12.5	5	62.5	2	25	8	100
SAL	1	14.3	1	14.3	1	14.3	4	57.1	7	100
OYSLB	0	0	1	10	6	60	3	30	10	100
Total	1		3		12		9		25	100

Findings revealed that majority of the respondents (12) disagreed that organizational facilities are available to support their use of ICTs. Also 9 respondents IOSL 2(25%), SAL 4 (57.1%) and OYSLB 3 (30%) seriously disagreed. It is evident from the findings that facilitating conditions are not as favourable as expected in the use of ICTs by librarians in the public libraries under studied.

Conclusion and Recommendation

Summarily, findings from this study revealed that performance expectancy, effort expectancy (ease of use), and social influence were important factors that influenced the use of ICTs by librarians in the public libraries. However, in the case of facilitating conditions, organisational and technical facilities that will support librarians ICT use were not available.

The study recommends that facilitating conditions such as relevant infrastructure, stable power supply, support from the stakeholders of the libraries, support from superior officers, availability of quality and frequent training programs, professional ICT staff, accessibility of latest information communication technologies and reliable internet that will encourage the effective use of ICTs by librarians be made available.

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