

Attitudinal Correlates of Some Selected Nigerian Librarians towards the Use of ICT

T. Adeyinka

Department of Library Information Studies

University of Botswana

email: tellayinkaedu@yahoo.com

Abstract

The explosion of information communication technology (ICT) since the beginning of the 20th century has been rendering manual-based library system in academic, research, special and public libraries less relevant. This is because using and implementing information communication technology in the library depend largely on the librarian attitude toward the current digital age. This study examined the attitudinal correlates of some selected Nigerian Librarian towards the use and application of ICT in their various libraries. A total of 41 librarians from all the four censured automated libraries in Oyo state of Nigeria formed the study's population. Two research questions were developed to guide the study. The results indicate that all the four out of the five variables age, gender, educational qualifications and prior knowledge of ICT significantly correlate with librarian attitude towards ICT; while the other variable ICT anxiety correlate negatively with the librarian attitude towards ICT. Findings further show that all the 5 variables significantly predict librarian's attitude towards ICT with prior ICT experience showing the greatest predictive effect. Based on these findings, it is recommended that libraries in the developing countries should consider training those librarians who do not have knowledge of ICT in order to remove the fear and anxiety hindering them from developing good attitude towards the use of ICT in their libraries.

Keywords: Attitude, Use of ICT, Digital Age, Librarians, Developing Countries, Nigeria.

Introduction

The explosion of information communication technology (ICT) since the beginning of the 20th century has been rendering manual-based library system in academic, research, special and public libraries less relevant. This is because using and implementing information communication technology in the library depend largely on the librarian attitude toward this digital age. There is no doubt about the fact that significant changes have taken place in libraries the world over due to the application of information communication technology (ICT) in automated cataloguing, circulation

systems, online information retrieval, electronic document delivery, and CD-ROM databases. According to (Ostrow, 1998) the advent of the Internet, digitization, and the ability to access library and research materials from remote locations have also created dramatic changes by the end of the twentieth century. Ramzan (2004) on his own pointed out that developments like expert systems, wireless networks, virtual collections, interactive Web interfaces, virtual reference services, and personal Web portals indicate greater changes since the start of the new millennium. The researcher added that there are significant and fast changes occurring in librarianship, where digital and electronic libraries are being established to complement, and in some cases to completely replace, the traditional libraries.

Attitude measurement in management information systems (MIS) research, for instance, has been shown to be informed by a specific understanding of the relationship between attitudes and behaviour as proposed by Fishbein and Ajzen (1975) in their theory of reasoned action (TRA). The theory posited that an individual's behaviour is determined by his/her intention to perform that both behaviour and intention are influenced jointly by the individual's attitude and subjective norm – a measure of how people are influenced by their peer's opinions (Dillon and Morris, 1996). Based on this reasoning, attitudes play important part in affecting behaviour and must, therefore, be taken into consideration in managing staff, especially during processes of change and innovation (Spacey, Guilding and Murray, 2003). According to these, the author attitudes are also open to influence. The age of a member of staff, for example, might have some bearing on an individual's opinion of the efficacy of the Internet and subsequent decision of whether to use it at work.

It should be noted that the revolutionization of library practices brought by rapid changes in information communication technology is posing challenges to the librarians in recent time particularly in the developing countries. To cope with these challenges posed by ICT, librarians in developed countries moved quickly to learn and adopt new information technologies (Ramzan, 2004). Computers, software, CD-ROM, email, Internet, networks, and other information management and communication technologies were introduced to perform different library functions and to provide innovative user services. At the same time, librarians raised their level of knowledge of new information technologies through continuing education programs, professional training, and through revisions in their library and information school curriculums. This helped them to leverage the benefits of new technologies. Ultimately their libraries became well equipped with sufficient hardware, appropriate software and effective technology-based materials (Ramzan, 2004). Considering what operate in developed countries as explained by Ramzan compared to the developing ones, the story is quite very different. This is due to lots of reasons ranging from inadequate availability of ICT equipments,

hardware and software issues to the like. While it is true that the change and the revolution of library practices will continue as new ICT is being invented and introduced, it should be noted as well that there is need for the librarians especially those in developing countries like Nigeria to develop positive attitude towards the application of ICT to library practices.

However, Ramzan (2004) have pointed out that the situation with regard to IT usage in Pakistan and other developing countries is not encouraging. He noted that veteran educators and librarians have observed that general librarians in developing countries were prone to implement information technologies, and librarians in Pakistan were also not prepared to embrace the changes forced upon them by new technologies; by explaining that most of them were uncertain about ICT applications in their libraries and the ultimate benefits to their parent organizations. This, according to Ramzan (2004), is couple with the fact that they had little knowledge of what technologies to acquire, how to implement them, and what problems to solve. Ramzan (2004) also pointed to reason like lack of knowledge of appropriate technologies, and the skill to analyze and evaluate library automation projects and their implementation as reported by (Haider, 1998; Khan, 1995; Mahmood, 1999; Rehman, 1992; Saeed, Asghar, Anwar and Ramzan, 2000). Nigeria is another developing country just like Pakistan. In the light of this therefore, this study determine the attitudinal correlates of the selected Librarians in Nigeria towards application of ICT in their various libraries. However, this effort is not an attempt to replicate any study, but the researcher just felt it would be helpful to have empirical evidence from a population of Nigeria librarian on this topical issue which is considered a bit new and of relative importance to the development of libraries at the digital era. Moreover, there is need to obtained data from a population of Nigeria librarian to see whether results will be relevant to what obtained in other parts of Africa or other developing countries where this kind of study has been conducted. It is hope that the findings of this study will help the librarian in Nigeria and developing countries as whole see the need to keep pace with and cope with challenges brought by the ongoing technological changes and revolution in librarianship.

According to Klausmeir and Godwin in Adekunle, Omobo and Adeyinka (2007), attitude is a learned emotionally toned disposition to react in a consistent way favourable or unfavourable towards a person, object or idea.

Generally, attitude may be defined as the total of a man's inclination and feelings, prejudices or bias, preconceived notions, ideas, fears and convictions about any specific topic (Taiwo, 1998).

Attitudes have been used to represent librarians' perceptions on the value attached to IT in libraries' technical processing, collection organization and user services. It represents the conceptual value of these technologies in the minds of the librarians, not

the values of these technologies. The study of attitude in general begins with a decision between two competing theories about the nature of attitude as a state of readiness, intervening variable between a stimulus affecting a person and that person's response (Agheyisi and Fishman quoted in Odinko, 1999). A person attitude, in this regard, prepares him to react to a given stimulus in one way rather than in another.

Attitudes to Technology

According to Spacey et al., (2003), attitudes – chiefly positive attitudes – are assumed to be fundamental in the acceptance, implementation and success of new technologies. Literature relating to people's views of technology is expressed in terms of attitudes to technology or attitudes to change (Spacey et al., 2003). For ICT systems to be successful, it is suggested that staff need positive attitudes to ICT (Fine, 1986; Evald, 1996).

Attitudes have been suggested to influence behaviour but the research in this area is varied in its conclusions. Social psychologists, Fishbein and Ajzen (1975) submitted in the Theory of Reasoned Action (TRA) that an individual's behaviour is determined by one's intention to perform the behaviour, and that this intention is influenced jointly by an individual's attitude and subjective norm (the latter is a measure of how people are influenced by their peer's opinions) (Dillon and Morris, 1996). Applying this understanding to an individual's acceptance of management information systems, the Technology Acceptance Model (TAM) (Davis, 1989) suggested attitude influences behavioural intention to use, and subsequent actual use. TAM also includes the constructs of perceived usefulness and perceived ease of use. Perceived usefulness is the extent to which a person believes that using a system (or computer programme, for example) will enhance their performance, whilst perceived ease of use is the extent to which a person believes that use of the system will be free from effort (Dillon and Morris, 1996). These two constructs have an important impact on a person's attitude toward using the system but, unlike the TRA, Davis found that attitude did not completely mediate between beliefs and intentions (Mathieson, 1991). This suggests that an individual could hold negative attitudes to a system, but would still use it because it has high-perceived usefulness (Dillon and Morris, 1996).

Attitudes of library staff to technological change

Research, which explored the influence of the attitudes of library staff, found that attitudes towards computers were positively associated with computer use and were also predictive of the number of hours of work performed on a computer (Winter, Chudoba and Gutek, 1998). These authors suggest attitudes towards computers are an appropriate focus for organisations attempting to increase the number of hours that their employees

use their computers.

There has been little research on the attitudes of UK public library staff to ICT. A study carried out in 1989 by (Craghill, Neale and Wilson, 1989) investigated the impact of information technology (IT) on staff deployment in UK public libraries and found that the introduction of IT had been a positive experience in general, although some staff had found it to be an initial barrier. The authors suggested that all library staff would need to have a positive attitude towards IT in future” It should be noted at this point that there are many variables which seem to have relations with or influences on the attitude of the librarians towards the use of ICT at the information age. In the light of this therefore, this study endeavour to embark on the review of some of these variables. Those focused are age, gender, prior knowledge and training, anxiety, and educational qualification.

Age

The age of librarians might also have some bearing on their attitudes and subsequent usage of ICT at work although, again, the findings from the literature are mixed (Spacey et al., 2003). These authors observed that the literature in relation to academic librarians in the USA notes that older staff are subject to common myths, for example, being “unwilling to learn new skills” (Arthur, 1998). Arthur went on to contest such assumptions, noting that “Overall, with few exceptions, age-related research seems to indicate that primary differences in performance appear to be due more to individual differences than to age differences” (Arthur, 1998). Conversely, a study of Internet use in an academic library environment found that older librarians were less likely to use the Internet (Rosenthal and Spiegelman, 1996).

In relation to attitudes (Spacey et al., 2003) reported that younger workers had higher average intention to use the Internet and ease of use scores than their older counterparts, especially in relation to the latter, where the difference between the groups was of medium significance, suggesting that older workers found the Internet more difficult to use than younger staff. In terms of computer skills, on the other hand, a relationship was found between age and computer proficiency, suggesting that younger library employees rated their skills more highly than their older colleagues. Positive perceptions of one's computer skills might relate to the familiarity younger workers have with ICT since it is used extensively at school, college and university. As Swann observes, “Information Communications Technology (ICT) is so recent that most people over the age of 28 have not had the benefit of computer training in their own schooling” (Swann, 2003). It was suggested in the qualitative data by a minority of the managers and survey respondents that older library workers might lack confidence with computers and perceive ICT differently to their younger colleagues, especially staff who

had originally joined the library service because of a love of books and literature. However, although older workers rated their PC skills less favourably than younger staff and felt the Internet was harder to use and to learn, no relationship was found to suggest that older staff used the Internet any less frequently than younger staff.

Gender

The influence of an individual's gender, a variable frequently explored in relation to ICT acceptance and usage, is of consequence when the majority of public library staff in the UK are women (Spacey et al., 2003). These authors explain that there has been much debate across disciplines as to whether women's use of computers is more problematic than that of men's and women are frequently portrayed as afraid of technology, computers and the Internet – alienated by the masculine culture surrounding them. This was further explained by Perry and Greber (1990).

Research results in the library and information sphere on the effects of gender on attitudes to ICT and use of ICT are also mixed (Spacey et al., 2003). A study by Harris (1999) looking at the impact of technological change on library work in both public and academic libraries in the USA and Canada found that women felt more threatened by technological change than men, while a more recent study of Internet use amongst academic reference librarians found that gender had no real influence on use (Rosenthal and Spiegelman, 1996).

Rosenthal and Spiegelman (1996) added that there was a significant difference between men's and women's median scores relating to the usefulness of the Internet, suggesting men rated the Internet more highly than women. Women's lower self-ratings of computer skills may be related to confidence, as a report reviewing the results of three IT for All surveys noted that women were less confident about their computer skills than men when asked to rate their ability. The authors argued that men are often more overconfident than women, alluding to the example of research into job applications where it was observed that men apply for jobs "they aspire to whilst women will apply for jobs that they know they can do."

Prior knowledge / experience and training

Spacey et al., (2003) assumed that computer proficiency would be related to the attitudes towards the Internet, specifically superior computer skills with positive attitudes and lesser skills with negative attitudes, a premise that was confirmed in the results. Similarly, these authors assume that individuals who rated their computer skills highly used the Internet more frequently than those who did not and, again, this assumption was supported, as respondents with poorer computer skills used the Internet less frequently than their more skilled colleagues. Respondents who rated their overall

computer skills as poor had lower average ease of use scores compared to the remaining respondents, suggesting that the greater one's computer skills the easier one finds learning and using the Internet (Spacey et al., 2003). Results from the literature inferred that experience with ICT (in this context length of time using the ICT) was related to attitudes but this relationship was not supported by the results (Spacey et al., 2003).

Moreover, Howard and Smith in Adekunle et al. (2007) found that computer knowledge and experience were positively correlated with attitude towards using computers. They also claimed that computer knowledge and experience may reduce or eliminate the fears that users may have. It must, therefore, be noted that anxiety disorders are the most common of all mental disorders, affecting computer operators and users in work setting. These include panic disorders, obsessive and compulsive disorders, phobias and generalized anxiety disorders (Popoola, 2002). Yaacob (1990) investigated the attitudes and perceptions of 120 librarians working in government-supported special libraries in Malaysia and examined the extent of application of IT, their use patterns, relationship between the librarians' attitudes toward IT and other variables.

Finlay & Finlay (1996) sought to establish a connection between current knowledge and personality types in measuring librarians' attitude towards use of the Internet. Along with the two individual characteristics, the research also measured other factors, including the level of support and the amount of training individuals received to enhance their knowledge or acceptance of the new technology. The findings of a study by Janes (2002) revealed that reference librarians who had experience with digital reference tended to have more positive attitudes than those who had no experience. Ramzan (2004) reported that a significant positive relationship exists between the librarians' attitudes toward IT and their level of knowledge of IT.

Anxiety

From a psychological perspective, Brosnan (1998) notes self-initiated interaction can actually increase anxiety and also individuals, attempt to use computer on their own are more likely to have a negative experience. Similarly, training by someone without the necessary skills or understanding of staff fears might reinforce anxieties about using ICT. Training, then, must not take place for the sake of training (Williamson, 1993) and must provide the necessary skills, be of the right amount, of good quality and may have to combat fears, as well as promote understanding and confidence in using ICT. Brosnan (1998) suggests that technophobes-those with an irrational fear of computers-are helped if they attend an anxiety reduction programme before commencing any formal training on a specific application. Benson (1983) for example, notes that the limited use of ICT, particularly microcomputers in some organisations, might be partly

due to user's fear of microcomputers having negative effects on their jobs and careers. However, user's anxiety towards computer use in the library work setting can be so extreme that it becomes uncontrollable, making it difficult for both system users and end users to search and retrieve needed information from the computer files (Popoola, 2002).

Educational qualification

The issue of educational qualification of the librarian can not be overlooked when discussing the attitude of the librarian towards ICT. This is because through education knowledge is acquired, awareness is created and ignorance is removed. Some studies seem to emphasize the importance of this. Popoola (Popoola, 2002), for instance, in his study on the users attitude towards microcomputer use in agricultural research libraries in Nigeria reported that there was statistically significant multicollinear relationship between users attitude toward CBLIS and their gender, age and educational qualifications. Al-Zahrani (2000 as quoted in Ramzan, 2004) investigated the perceptions of 147 library professional and para-professional staff concerning information technology innovations and training in university libraries in Saudi Arabia. He found a significant relationship between respondents' educational background, experience in using information technology, and their perceptions about IT.

Self-efficacy

It is assumed that librarians who are self-efficacious with a good knowledge of ICT will develop a positive attitude toward it. The construct of self-efficacy represents one core aspect of Bandura's social cognitive theory (Bandura, 1997, 2000, 2001). The theory posits that self-efficacy makes a difference in how people think, feel and act. Therefore, it can be said that librarian who have little confidence in their ability to use the Internet, who are dissatisfied with their Internet skills or who are uncomfortable using the Internet at this digital age may be said to have weak self-efficacy beliefs. Those with low self-efficacy, according to Bandura, may be less likely to perform related behaviours in the future (Bandura, 1982). It is on this note that this study intends to examine whether librarians self-efficacy will actually correlate or could predict their attitude to ICT.

With the above review of literature, this study examined the attitudinal correlates of some selected Nigerian librarians towards the use and application of ICT in their various libraries. To achieve this objective, two research questions were developed to guide the study. These are:

1. What is the relationship between demographic variables of respondents, age, gender, prior knowledge / experience and training, educational qualification, computer

anxiety and librarians attitude towards ICT?

2. Which of the variables is a mediating factor influencing or predicting attitude of the librarian towards the use of ICT?

Methodology

This study adopts a descriptive survey method. The essence is to be able to describe the attitude of the librarians towards ICT application to library practices. The study targeted librarians in all automated libraries in Oyo state of Nigeria. These libraries are: Kenneth Dike library, University of Ibadan; Ladoke Akintola University of Technology Library; The polytechnic Ibadan library, International Institute of Tropical Agriculture IITA library Ibadan and Oyo State College of Education Library, Oyo. All these libraries were censured and within each library, librarians were also censured. A librarian, in this study, is assumed to mean a full-time professional who runs the affairs of the library as head of the department.

Table 1

Sample Selection

Libraries	Number of librarians
Kenneth Dike Library, University of Ibadan.	17
Ladoke Akintola University of Technology Library	10
The Polytechnic Ibadan Library	8
International Institute of Tropical Agriculture Library	6
Oyo State College of Education library	5
Total	46

A total of 41 librarians took part in the study. Out of this population, 26 were male and 15 were female. Data on educational qualification of the respondents showed that 5 hold Ph.D. and the rest 36 holds MLS degree. The instrument used for the collection of data was a modified Igberia and Chakrabarti (1990) computer anxiety and attitude towards microcomputer utilization (CAATMU) scale and Librarian attitude questionnaire developed by Ramzan (2004). This instrument is divided into three parts.

Part 1: Demographic variables of the respondents. The items included in this part were respondent's age, gender, highest educational qualification, department/section/ division and length of service.

Part 2: Attitude towards ICT. This part contains ten items measuring librarian attitude toward the use of ICT in libraries. They relate to both positive and negative effects of ICT in automated libraries. Respondents were asked to rate their belief about ICT application to library practices on 2 points scale; 2 = Agree and 1 = Disagree.

Part 3: ICT Experience and Training. This part contains 7 items which assessed

librarian ICT experience and training relating to use of query language, library software packages, operating system softwares, knowledge of computer programming, participating in design and implementation of ICT based information system and method of acquiring ICT experience.

Part 4: ICT anxiety. This part contained 10 items reflecting generalized anxiety about information communication technology ICT. The response option ranged from strongly agree 5 to 1 = strongly disagree. The internal consistency reliability level of 0.85 was achieved. The overall internal consistency reliability coefficient of the instrument used was 0.82. This was used to measure the librarian anxiety towards the use of ICT. The **Procedure involved** moving round all the participating libraries to administer the instrument based on the approval of the management. Following the direction on how to respond to the instrument, it was properly filled and returned. The results of the analysis on the study are presented as follows:

Research question 1: What is the relationship between demographic variables of respondents, age, gender, prior knowledge / experience and training, educational qualification, computer anxiety and librarians attitude towards ICT? To answer this question, data collected on the responses of the librarian to the demographic data of age, gender, and educational qualifications were rated. Additionally, data on the responses to parts 3, and 4 of the instrument were also collected. All these were correlated with the data on response to part 2 of the instrument which is on attitude of librarian to ICT. The results obtained were presented in Table 2.

Table 2

Descriptive Statistics and Intercorrelation among the Variables

Variables	No	Mean	Attitude to ICT	Age	Gender	Edu.Qual.	PKET	CSE	ICT Anxiety
Attitude to ICT	46	55.63	1.0000						
Age	46	52.51	0.5234*	1.0000					
Gender	46	46.71	0.4615*	0.3341	1.0000				
Edu.Qual.	46	50.01	0.5614*	0.3421	0.4122	1.0000			
PKET	46	51.54	0.5717*	0.3211	0.3773	0.4163	1.0000		
SE	46	50.07	0.5516*	0.3111	0.235	0.3672	0.2453	1.000	
ICT Anxiety	46	30.11	-0.0029	0.2311	-0.2117	-0.2	-0.0123	-0.0056	1.000

Legend – PKET= *Prior knowledge, Experience and training*

Edu. Qual. = *Educational qualifications*

SE= *Self-efficacy*

Table 2 above contains descriptive statistics and intercorrelations among the variables. As indicated in this table, attitude towards ICT (the dependent variable) correlated with independent variables: (1) Prior knowledge/experience and training ($r = 0.5717$; $P < 0.05$), (2), self-efficacy ($r = 0.5516$; $P < 0.05$). (3) Educational qualification ($r = 0.5614$; $P < 0.05$), (4) Age ($r = 0.5234$; $P < 0.05$), (5) Gender ($r = 0.4615$; $P < 0.05$). The results further reveal ICT anxiety as having negative correlation with librarian attitude towards ICT (i.e. ICT anxiety $r = -0.0029$; $P < 0.05$). The result shows that prior knowledge/experience and training, educational qualification, age, and gender positively correlates with librarian attitude towards ICT; while anxiety towards ICT has a negative correlation with librarian attitude towards ICT.

Research question 2: Which of the variables predict attitude of the librarian towards the use of ICT?

Table 3

Multiple Regression Analysis for Predicting Librarian Attitude towards ICT

Standard error of estimate SEE = 8.7510					
Multiple R ² adjusted = 0.5812					
Multiple R adjusted = 0.7341					
	Sums of squares	df	Mean square	F	P
Due to regression	3,415.40	5	683.08		
Due to residual	241.62	40	6.04	113.1	0.001
Total	3657.02	45			

The data analysis in Table 3 shows that age, gender, educational qualifications, prior ICT experience/knowledge and training and anxiety towards ICT are significant variables for predicting librarian attitude towards ICT. ($F = 113.1$, $df = 5$, No. 46; $P < 0.001$). In addition, all the five variables explained 58.12% of the total variance in librarian attitude towards ICT in the selected Nigeria libraries ($R^2 = 0.5812$, $P < 0.001$). However, to determine the extent to which each of the 5 variables contributes to the prediction of librarian attitude towards ICT, the test of significance of the estimated parameters in the regression model was carried out in Table 4.

Table 4

Relative Contribution of the Independent Variables to the Prediction of Librarians' Attitude towards ICT

Variables	Std 'B' weights	SE (B)	T-value
Age	0.29	0.025	6.67
Gender	0.25	0.024	6.79
Educational qualifications	0.36	0.021	7.02
Prior knowledge/exp and training.	0.40	0.028	6.58
Self-efficacy	0.39	0.022	6.45
ICT Anxiety	-0.41	0.046	13.21

In Table 4, among the variables considered for the study, prior knowledge/experience and training on ICT had the greatest significant effect on librarians attitude (B = 0.40, T = 6.65). This is followed by self-efficacy (0.39, T. 6.45). Others followed in the following order: educational qualifications with (B = 0.36, T =7.02); Age (B =0.29, T =6.67); Gender (B = 0.25, T = 6.79) and ICT anxiety (B = -0.41, T = 13.21).

Discussion

The results of the study have shown that all the four out of the five variables age, gender, educational qualifications, prior knowledge of ICT significantly correlate with librarian attitude towards ICT; while the other variable ICT anxiety correlate negatively with the librarian attitude towards ICT. Findings further show that all the 5 variables significantly predict librarian's attitude towards ICT with prior ICT experience showing the greatest predictive effect. The present findings of this study corroborate some findings of the earlier study. For example on age, (Spacey et al., 2003) reported that younger workers had higher average intention to use the Internet and ease of use scores than their older counterparts, especially in relation to the latter, where the difference between the groups was of medium significance, suggesting that older workers found the Internet more difficult to use than younger staff. In terms of computer skills, the same (Spacey et al., 2003) reported a relationship between age and computer proficiency, suggesting that younger library employees rated their skills more highly than their older colleagues. This indicates that age is an important predictor of attitude towards ICT. While Spacey, et al. (2003) observed that older people usually have the myth of unwillingness to learn new technology. Arthur went on to contest such assumptions, noting that "Overall, with few exceptions, age-related research seems to indicate that primary differences in performance appear to be due more to individual differences than to age differences" (Arthur, 1998).

On gender, Harris (1999) found that women felt more threatened by technological change than men. Additionally, Rosenthal and Spiegelman's (1996) reported that there

was a significant difference between men's and women's median scores relating to the usefulness of the Internet, suggesting men rated the Internet more highly than women. This lends support to the finding on this study that gender relates significantly to and significantly predict librarian's attitude towards ICT.

Results from the literature inferred that experience with ICT was related to attitudes, thereby supports the finding on this study. Similarly, a significant relationship which was determined between the librarians' attitudes and awareness of the potential of IT, and recency of attaining professional qualifications, and knowledge in IT testify to this result. The study revealed that the head librarians' level of knowledge in technology was good predictor of the librarians' attitudes toward IT (Yaccob, 1990). Howard and Smith (as cited in Adekunle et al., 2007) found that computer knowledge and experience were positively correlated with attitude towards using computers. Finlay & Finlay (1996) established a connection between current knowledge and personality types in measuring librarians' attitude towards and use of the Internet. Along with the two individual characteristics, the research also measured other factors, including the level of support and the amount of training individuals received to enhance their knowledge or acceptance of the new technology. The researchers hypothesized that those who had a higher level of knowledge and a more innovative personality were likely to have a more positive attitude towards the innovation; however, the hypotheses related to knowledge were supported, but the hypothesis that predicted innovativeness to relate positively to actual Internet use was not supported. The findings of a study by Janes (2002) revealed that reference librarians who had experience with digital reference tended to have more positive attitudes than those who had no experience. Ramzan (2004) reported that a significant positive relationship exists between the librarians' attitudes toward IT and their level of knowledge of IT. All these reports provide strong indication that the relationship reported between prior knowledge/experience and training to librarian's attitude to ICT on this study does not occur by chance.

The finding that educational qualification correlates to and significantly predict librarian attitude towards ICT is also supported by the report of the study conducted by Popoola (2002) where it was reported that a statistically significant multicollinear relationship exists between users attitude toward CBLS and their gender, age and educational qualifications. Similarly, Al-Zahrani (2000) found a significant relationship between respondents' educational background, experience in using information technology, and their perceptions about IT. These findings are enough to confirm this present finding.

The fact that anxiety towards ICT has negative correlation with librarian attitude to ICT can be explained based on the observation that limited exposure or lack of exposure

to the use of ICT may bring about fear. Not this alone, librarian's anxiety towards computer particularly in the library work setting can be so extreme that it becomes uncontrollable; making it difficult for them to search and retrieve needed information from the computer files (Popoola, 2002). The psychological perception by Brosnan (1998) that self-initiated interaction can actually increase anxiety and an individual attempting to use a computer on his or her own are more likely to have a negative experience- also buttresses this result.

Conclusion

Based on the findings of by this study, it is clear that fear and anxiety cause a negative effect and hinders the development of positive attitude to the use of ICT by the librarian. In the light of this, it is not an overstatement to state that there is need for libraries to embark on training their librarian who does not have knowledge of ICT. This is an avenue towards which the issue of anxiety can be overcome by the librarians. There is the belief that frequent interaction with ICT will gradually wipe away whatever fear librarian might have towards ICT. According to Williamson (1993) good staff training will always result in improved motivation and more able and competent staff. At this digital era, it could be noticed that things keep changing everyday. New technologies are being introduced on a daily basis and this is affecting the performance of library operations. No doubt, librarians need to keep pace with this development. They need to forget about the old ways of handling library operations and face the reality of the digital age which requires good knowledge of ICT and their applicability to the library practices. It should also be stressed here that the fear that many people have towards ICT, in this part of the World, is widening the issue of digital divide. This is really affecting many people's attitude to ICT not only the librarians. Here in Africa, the time has come for us to bridge the digital gap. Let's do away with all fears about computer or ICT generally. African libraries that have not yet automated their libraries should start aiming and thinking about it now. They should begin training their librarians for IT so that they could be ready for the process of automation commence in their libraries.

References

- Adekunle, P. A., Omoba, R.O., & Adeyinka, T. (2007, December). Attitude of some selected Nigeria librarian to the use of ICT. *Library Philosophy and Practice*.
- Al-Zahrani, R. S. (2000). Perceptions concerning information technology (IT) innovations and IT training in university libraries in Saudi Arabia (Doctoral Dissertation, Florida State University, Tallahasee, FL). *Dissertation Abstracts International*, Online.

- Arthur, G. (1998). The 'graying' of librarianship: Implications for academic library managers. *The Journal of Academic Librarianship*, 24(4), 7.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37, 104-127.
- Bandura, A. (2000). Exercise of human agency through collective efficacy. *Current Direction of Psychological Science*, 9, 75-78.
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52, 1-26.
- Benson, D. H. (1983). A study of end user computing: Findings and issues. *MIS Quarterly*, 7, 35-45.
- Brosnan, M. (1998). *Technophobia: The psychological impact of information technology*. London: Routledge.
- Council Library and Information Resources. (1998). *Digitizing pictorial collection for the Internet*. Washington D.C.: S. E. Ostrow
- Craghill, D., Neale, C., & Wilson, T. D. (1989). *The impact of IT on staff deployment in UK public libraries*. London: British Library.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13, 319-39.
- Dillon, A., & Morris, M. (1996). User acceptance of information technology: Theories and models. *Annual Review of Information Science and Technology*, 31, 3-32.
- Evald, P. (1996). Information technology in public libraries. *Program*, 2(30), 121-31.
- Fine, S. (1986). Technological innovation diffusion and resistance: A historical perspective. *Journal of Library Administration*, 7(1), 83-108.
- Finlay, K., & Finlay, T. (1996). The relative roles of knowledge and innovativeness in determining librarians' attitudes toward and use of Internet: A structural equation modeling approach. *Library Quarterly*, 66(1), 59-83.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behaviour: An introduction to theory and research*. Reading, Mass.: Addison-Wesley.
- Haider, S. J. (1998). Library automation in Pakistan. *International Information & Library Review*, 30, 51-69.
- Harris, R. (1999). *Cyber Geo*. Retrieved August 17, 2007, from www.cybergeopresse.fr/essoct/harris/harris.htm.
- Igberia, M. & Chakrabarti, A. (1990). Computer anxiety and attitudes towards microcomputer use. *Behaviour and Information Technology*, 9 (3), 229-241.
- Janes, J. (2002). Digital reference: Reference librarians, experiences and attitudes. *Journal of the American Society for Information Science and Technology*, 53 (7), 549-566.

- Khan, N. A. (1995). Information technology in the university libraries of Pakistan: Stresses and strains. *Pakistan Library Bulletin*, 26(1), 1-11.
- Mahmood, K. (1999). The development of computerised library services in Pakistan: A review of the literature. *Asian Libraries*, 8(9), 307-28.
- Mathieson, K. (1991). Predicting user intentions: comparing the technology acceptance model with the theory of planned behaviour. *Information Systems Research*, 2(3), 91-173.
- Odinko, M. N. (1999). *Socio-psychological factors as correlates of learning outcomes in English language among senior secondary students*. (Med Thesis, University of Ibadan, Nigeria).
- Perry, R., & Greber, L. (1990). Women and computers: An introduction. *Journal of Women in Culture and Society*, 16(11), 74-101.
- Popoola, S. O. (2002). User's attitudes towards microcomputer use in agricultural research libraries in Nigeria. *Journal of Librarianship in Information Science in Africa*, 2 (1), 15-25.
- Ramzan, M. (2004, February 11-13). Does level of knowledge impact librarians' attitude toward information technology (IT) applications? *2nd International CALIBER*, New Delhi.
- Rehman, S. (1993). Library automation in Pakistan: Myths and realities. In Fida Mohammad (Ed.), *Challenges in Automating the Library Services*.
- Rosenthal, M., & Spiegelman, M. (1996). Evaluating use of the Internet among academic reference librarians. *Internet Reference Services Quarterly*, 1(1), 53-67.
- Saeed, H., Asghar, M., Anwar, M., & Ramzan, M. M. (2000). Internet use in university libraries of Pakistan. *Online Information Review*, 24 (2), 154-160.
- Spacey, R., Goulding, A., & Murray, I. (2003). ICT and change in UK public libraries: Does training matter? *Library Management*, 24 (1-2), 61-69.
- Swann, D. (2003). ECDL for educators: ICT skills training in context. *Computer Education*, 103, 16-17.
- Taiwo, A. S. (1998). *Some psycho-social and linguistic variables as determinants of performance in English language in selected secondary schools in Kwara State, Nigeria* (Med thesis, University of Ibadan).
- Williamson, M. (1993). *Training needs analysis*. London: Library Association.
- Winter, S. J., Chudoba, K., & Gutek, B. A. (1998). Attitudes toward computers: When do they predict computer use? *Information and Management*, 34 (5), 84-275.
- Yaacob, R. A. (1990). *Attitudes concerning information technology of librarians employed in government-supported special libraries in Malaysia* (PhD. Dissertation, University of Michigan).