Influence of Users' Computer Self-Efficacy and Perceptions on Satisfaction with Electronic Libraries in Northern Nigerian Universities

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Abstract
In recent times, advancement in technology has penetrated areas of library functions, especially, the establishment of an electronic library (e-library) system that has become commonplace in Nigeria. Studies have shown a low level of users' satisfaction with these resources. Thus, this study examined the influence of users' computer-self-efficacy and perception on users' satisfaction with e-libraries in Northern Nigerian universities. Descriptive survey research was adopted. A population of 7,028 users was considered out of which 1,406 was randomly sampled and used. A questionnaire was used to collect data. Hypotheses were tested with Spearman Rank-Order Correlation. Findings revealed that computer self-efficacy of users with e-libraries were high, even though their perceptions of e-libraries were low. There was a strong relationship between computer self-efficacy and satisfaction with e-library $(r(951) = .164, p = .000)$, a positive correlation between perceptions and satisfaction with e-library $(r(951) = .334, p = .000)$. It was therefore concluded that the satisfaction of users with e-libraries in the universities in Northern Nigeria would largely be influenced by their level of computer self-efficacy and perception. The study recommended the acquisition of relevant skills by the user for satisfactory utilization of the e-libraries. In particular, users should be assisted in identifying high-quality e-library resources.

Keywords: **Computer self-efficacy, e-library, users' perception, users' satisfaction, Northern Nigeria**

Introduction

The university library has been variously described as an important part of the universities for which they were established, providing favourable learning environments for students and other

categories of users within and outside its community. Academic libraries are expected to provide information resources to meet the needs, expectations and aspirations of their users, and by extension, meet the teaching, learning and research objectives of the institutions. However, Nwirigi (2012) postulated that in recent time, technology has penetrated all areas of library functions and the establishment of an electronic library system has become commonplace in the 21st Century. It has led to a dramatic switch to digital collections with an impact on library users and their perceptions of the library and its resources. The advent of technology in libraries has recreated the face of librarianship, which, according to Tenopir (2003) requires that the university libraries realign themselves with the new trend of service delivery.

The emerging information trend has come along with networked systems, new methods of acquisition and utilization of information resources. It, therefore, means that university libraries have to create new ideas in service delivery that will bring about user satisfaction. Consequently, there are associated challenges of responding to these ever-increasing and changing digital information technologies, which are gradually prompting the migration from the traditional ways and methods of the library service system to the electronic libraries (e-libraries) which are the modern technology-driven system. Consequent upon this, Issa, Amusan and Daura (2009) confirmed that the university libraries began to embrace the new trend; leading to considerable investments being deployed by universities in Nigeria to establishing e-libraries and acquiring information resource databases to improve information service delivery.

However, with the choices, investments by universities, opportunities and enhanced flexibilities that the e-library provide, it was observed by Abdullahi and Gibb (2006) that the majority of users do not avail themselves of these technologies due to poor levels of computer competency and low perceptions towards the technology. To encourage the usage of e-libraries, there is the need to understand factors such as the users' computer self-efficacy and users' perceptions that could influence users to use and seek information from the e-library satisfactorily. Having basic computer skills is a significant strength of e-library users in the universities. Therefore, computer self-efficacy is required to effectively explore new information system effectively because information stored in e-libraries have become, "with search engines, in general, one of the major web services, that are expected to be explored by a diverse population of users, who have heterogeneous background, skills, and preferences", (Liaw & Huang).

Just like the personal computer self-efficacy, their perception is fundamental to the satisfactory use of e-libraries. Based on the constructs of Technology Acceptance Model (TAM), users need to develop a positive perception towards any system for that system to be useful. A recent study by Mohammed and Swelatha (2006) reports the poor utilization of these resources due to user's low perceptions towards the e-libraries despite their advantages. This was linked to the level of awareness, user acceptance and adoption of these facilities, as underscored by

Millawithanachichi (2012). Hence, the investigation of such factors as user computer self-efficacy and perceptions, which may bring about user-satisfaction with the use of e-libraries.

Statement of the problem

The chief goal of establishing e-libraries is to make available, adequate and current information resources to users with the sole aim of satisfying the information needs of its users in all subject areas. Their academic performance partly measured the extent to which these library systems contribute to the success in the intellectual development of users.

Some studies have been conducted in different areas of varied population, but most of which focuses on the availability of e-resources, e-resources needs of users and usefulness of e-resources. Notwithstanding the fact that some of these studies identified poor adoption and utilization of these resources, they did not investigate these factors, which could influence the users' satisfaction with e-libraries. There is therefore a dearth of studies, particularly on the satisfaction of users with e-libraries in Northern Nigerian universities from the perspective of computer self-efficacy and perceptions towards the use of e-libraries. It is against this backdrop that the study examined the influence of computer self-efficacy and perception on the satisfactory use of electronic libraries in Northern Nigerian universities.

Objectives of the study

The study examined the influence of user's computer self-efficacy and perception of satisfaction with e-libraries in Northern Nigerian universities with the following specific objectives:
1. To examine the computer self-efficacy of users with e-libraries in universities in Northern Nigeria.
2. To find out the users' perceptions of e-libraries in universities in Northern Nigeria.
3. To identify the types of e-resources available in the universities in Northern Nigeria.

Research hypotheses

The following null hypotheses were tested at 0.05 level of significance in this study:

$H0_1$. There is no significant relationship between computer self-efficacy and users' satisfaction with the use of e-libraries in Northern Nigerian universities.
$H0_2$. There is no significant relationship between users' perceptions of e-libraries and satisfaction with the use of e-libraries in Northern Nigerian universities.

Literature review

The purpose of e-library is to provide a coherent organization and convenient access to a variety of information in e-format. The provision of electronic information in university libraries cannot occur if computer literacy is absent. Nigerian universities have come to embrace the new trend of ICT deployments for a whole lot of its activities including that of libraries. Enormous

investments are daily being made to acquire these resources to satisfy the information needs of its diverse users. It requires computer literacy of stakeholders to make the new trend functional to the expectations of users. The effective use of the e-libraries is, therefore, largely depended on the users' level of computer competency. In fact, Milliani, Korobili and Togia (2012) established that the computer competence of users is positively related to the frequency of use of certain electronic activities and previous Personal Computer (PC) /Internet experience.

In a study of foreign language teachers' information and computer literacy, Korkut and Akkoyundu (2009) found that there exist a positive relation between information and computer self-efficacy. Similarly, Ren (2000) in a study on library instruction and college student self-sufficiency in electronic information searching also found that self-sufficiency in electronic information searching was positively related to computer self-efficacy and a users' perception of the ease of use of a computer. Waldman (2003) surveyed a class of freshman at Baruch College on the role of self-efficacy in searching information and use of the library's e-resources. Results showed that students who expressed interest in learning about library's e-resources are more likely to have higher computer self-efficacy.

Library users are more interested in performing activities in which they have high self-efficacy. Indeed, Shaw and Giacqinta (2000) confirmed that students with high computer self-efficacy are likely to be more comfortable in web information searching. Likewise, educational technology students were, as reported by Sam, Othman and Nordin (2005) using computers more frequently for a variety of activities, and for a greater number of hours each week than students in the educational administration, business education and higher education programs. Paraskeva, Bonta and Papagiani (2008) underscored that the frequency of use for varying activities might be due to their computer self-efficacy as a result of their familiarity with technology.

In a study of computer self-efficacy, computer anxiety, and attitudes toward the Internet among undergraduates in Unimas, Hsoung (2010) found that there were differences in undergraduates' usage levels based on the discipline of study. Undergraduates from the Faculty of Computer Science and Information Technology and Faculty of Applied and Creative Arts were found to use the Internet longer than those from other faculties. Prior experiences of an individual with computer use and its applications have influences on their computer competencies. In this study, Kumar and Kumar (2010) affirmed that the experiences have had links with their emotional attitudes towards technology. Similarly, Daramola (2016) in a study on teachers' adoption of technology for the classroom environment found that teachers with positive prior experience in the use of technology as an aid to teaching tended to use it in the classroom.

Users' perceptions on any usage system depend on the level of their awareness, understanding and the flexibility of such system. Thus, the study by Masrek and Gasken (2016) on the perception and usage of e-resources and the Internet by Indian academics revealed awareness of e-resources among students and faculty members, even as majority of user still prefer print to electronic information sources; arising from poor encouragement, as revealed by

the findings of Kermani, Tatari, Samerie and Motalebipour (2015). Also, the study by Igbo and Imo (2013) on the perception and utilization of electronic resources by undergraduate students in the Federal University of Technology Library, Akure, showed that students were not motivated to use the e-library. These motivations are the provision of quality information resources, quality systems and services to be a significant predictor of users' positive perceptions and satisfaction with e-library use.

Similarly, Omotayo (2010) confirmed that the way a user perceived a system useful and his personal experience about such system had an impact on his satisfaction with its usage. The perceptions of users towards e-libraries were found by Natarajan, Suresh, Suvaraman and Seruken (2010) to be low owing to lack of adequate e-resources and irregularity in the subscription to e-journals. Furthermore, Olle and Borrego (2010) found lack of awareness as another major constraint against the use of e-resources. The study of faculty members on the usage and user perception of e-resources in Annamalai University by Brennan, Hurd, Blecic and Weller (2012) established that the frequency of use of e- resources were very low, notwithstanding their wide range availability. In addition, the study found inadequate availability of time, low level of awareness, poor subject coverage and slow downloading of e-resources as other factors responsible for the poor perceptions of users towards e-libraries.

On their part, Kalbande, Shinde and Ingle (2013) in a statistical study of the use and citations of e-resources confirmed user eagerness to migrate from print to electronic sources, high acceptance of e-resources and unwillingness to return to print-only versions. Thus, Haridasan and Khan (2009) underscored that electronic information resources are being gradually accepted and adopted in academic environments, despite the varying behaviour alongside disciplines. The study by Sevukan and Sivaraman (2008) on how the adoption of electronic information resources has affected academics' information behaviour revealed that faculty members make fewer visits to the library and read more than in the print era across a broader number of journals. When Sirasubramaniyan and Sadik (2012) conducted a survey of 108 faculty members at the Mahatma Phule Agricultural University, India, findings revealed that the impact of e-resources was visible from the decrease in the number of printed documents in comparison to the increase in the number of e-resources.

Awareness is very important for adopting and using any system, unless the system is accidentally used. To be part of any system, awareness and perception of that system as well as the functionalities and usability of such system are germane. The e-journal use by doctoral students of Calicut University was found by Mohammed and Sreelatha (2006) to have positive perceptions towards them. The finding explained the assertion that having access to a variety of current books and journals to conduct research are the major motivations of e-library use. A study on the effective access of teachers to digital resources in Malaysia by Carlson and Reidy (2004) indicated a poor perception towards their use; reporting that 84% of the teachers spend less than 50% of their time using web-based resources during instructions. On the contrary,

users' perception of e-libraries in the Siva Institute of Frontier Technology, India, in the study by Chandran (2013) showed that the majority of the respondents had a high perception rate with the relevance of e-resources for their programmes. However, in other studies, there were reported cases of challenges faced by users which seemed to lower their perceptions of e-libraries. These include slow downloading, poor information literacy skills and lack of access to most full-text of journal articles. Such challenges affect their satisfactory use of library e-resources in most universities.

From the literature reviewed, it is evident that although many studies have been conducted in the area of e-resources availability, accessibility and usage from different perspectives and in different circumstances, there remains the need for such a study to investigate the factors affecting their satisfactory usage. This is with a view to justifying the huge financial investment of the university libraries in acquiring these usually expensive resources towards meeting the varied need of the users. This is the gap that this study sets to fill.

Methodology

The study adopted the descriptive survey with the quantitative approach while the target population comprised of all the registered e-library users in eight university libraries across private, state and federal universities that have established functional e-libraries across Northern Nigeria. Records of the studied university libraries revealed 7,028 registered users out of which 1,406 were selected through a random sample process. The sample amounted to 20% of the population as recommended by Gall, Borg and Gall (2003) that any population less than 2,000, a minimum of 10% sample is acceptable. Similarly, a minimum of 20% is essential for descriptive studies, just as a structured questionnaire was as data collection instrument, as recommended by Fraenkel and Wallen (2000). Purposive sampling technique was used to select the eight universities for the study. Although there were forty-five universities (federal, states and private) in Northern Nigeria, only eight of them have functional e-libraries at the time of the study. Therefore, the eight universities were purposively selected, irrespective of their geopolitical zones and ownership; comprising four universities from North-central, two each from North-west and North-east. They also include four federal universities, three state universities and one private; namely Ahmadu Bello University, Zaria, Kaduna State, Umaru Musa Yar'adua, University, Katsina, Katsina State, University of Ilorin, Ilorin, Kwara State and University of Jos, Jos, Plateau State. Others are Federal University, Lafia, Nassarawa State, Nassarawa State University, Kefi, Nassarawa State, American University of Nigeria, Yola, Adamawa State and Gombe State University, Gombe, Gombe State.

The data collected for the study were coded and tabulated for the purpose of analysis through the use of Statistical Packages for Social Sciences (SPSS) version 20. Spearman Rank-order Correlation was used to test the relationship between users' computer self-efficacy and perceptions and satisfaction with e-libraries in the universities in Northern Nigeria. Simple

percentages were used to analyse the availability and the usefulness of e-resources, with a view to determining the relative influence of users' computer self-efficacy and their perceptions of user-satisfaction with e-libraries.

Findings and discussion

This section presents the data analysis, and discussion of findings. It provides detailed answers to the three research questions and two hypotheses. The first question sought to know the level of computer self-efficacy of users with e-libraries in Northern Nigerian universities, in response to which the data in Table 1 were provided.

Table1: Computer self-efficacy of users with electronic libraries

Statements	SD (1)	D (2)	N (3)	A (4)	SA (5)
It is easy to turn on and shut down the computer	4(.4)	14 (1.5)	43 (4.5)	246(25.9)	644 (67.7)
It is easy to start and exit a computer programme	7(.7)	13 (1.4)	28 (2.9)	285 (30)	618 (65)
Using a 'search' command to locate a file is simple	16(1.7)	19 (2)	40 (4.2)	263(27.7)	613 (64.5)
It is not difficult to move a file from a hard drive to a USB drive	118(12.4)	403(42.4)	55 (5.8)	133 (14)	242 (25.4)
Installation of a software program is easy	119(12.5)	428 (55)	80 (8.4)	131(13.8)	193 (20.3)
It is simple to send and receive attachments through e-mail messages	12(1.3)	46 (4.8)	44 (4.6)	343(36.1)	506 (53.2)
No difficulties searching information on the web using search engines	7(.7)	22 (2.3)	69 (7.3)	323 (34)	530 (55.3)
Easy to download relevant information from Internet	12(1.3)	35 (3.7)	59 (6.2)	357(37.5)	488 (51.3)
It is easy to sort out any access problems while on the Internet	99(10.4)	447 (47)	79 (8.3)	167(17.6)	159 (16.7)
Downloading and saving files from the Web is simple	23(2.4)	553 (58.1)	58 (6.1)	143 (15)	174 (18.1)
The level of my computer literacy is high	11(1.2)	53 (5.6)	122(12.8)	390 (41)	375 (39.4)
The level of my information literacy is high	32(3.4)	508(53.4)	51 (5.4)	188(19.8)	172 (18.1)

The item-by-item analysis indicated in Table 1 shows that majority of the respondents (Strongly Agreed and Agreed responses combined), 890(93.6%) can successfully boot and shutdown computers; 903(95%) found it easy to start and exit a computer programme, using a

'search' command to locate a file. Further results showed that 876(92.2%) could not successfully move a file from a hard drive to a USB drive; 577(67.5%) were not too good at the installation of a computer software programme. Whereas 849(89.3%) could send and receive attachments through e-mail messages; 853(89.3%) did not find searching information on the web using search engines difficult; as 845(89%) find it easy to download relevant information from the Internet, even though sorting out any access problem while on the web and downloading of files from the web were considered difficult by 546(57.4%) and 576(60.5%), respectively.

The second question focused on the perception of the users towards electronic resources in their university libraries. Responses to the question yielded the data contained in Table 2.

Table2: Users' perceptions of e-libraries

Statements	SD (1)	D (2)	N (3)	A (4)	SA (5)
E-library enhances my studies	88(9.3)	286(30.1)	86(9.0)	301(31.6)	190(20)
I visit e-library because of its available resources	94(9.9)	254(26.7)	96(10.1)	321(33.7)	186(19.6)
E-library provide up to date information	66(6.9)	524(55.1)	41(4.3)	186(19.5)	134(14.1)
Information retrieval is faster using e-library	111(11.7)	546(57.4)	55(5.8)	130(13.7)	109(11.5)
There are enough e-sources to consult when using e-library	417(43.8)	300(31.5)	66(6.9)	17(1.9)	151(15.9)
E-library saves time and stress	77(8.1)	466(49.0)	66(6.9)	178(18.7)	164(17.2)
Information in e-library is not difficult to access	137(14.4)	623(65.5)	90(9.5)	58(6.1)	43(4.5)
I perceived e-library easy to use	34(3.6)	584(61.4)	89(9.3)	153(16.1)	91(9.6)
I perceived e-library useful for my studies	36(3.8)	404 (42.5)	122(12.8)	239(30.8)	150(15.8)

Table 2 indicated that the majority, 717(75.5%) of the respondents, comprising 'Strongly Disagreed' and 'Disagreed' categories, had negative perception on availability of sufficient e-resources; 590(62%) on provision of current e-resources; on whether information retrieval was faster using e-libraries 657(69.1%) and 760(80%) on the statement that information from the e-libraries was not difficult to access. Majority 507(52%) also agreed that they visit e-libraries often, while the remaining 440 (46.3%) do not perceive e-library useful for their studies.

The third question on the types of e-resources available in these university libraries generated the data contained in Table 3.

Table 3: Electronic resource availability

Items	SD (1)	D (2)	N (3)	A (4)	SA (5)
Full text database	30 (3.2)	168 (17.7)	103 (12.8)	374 (39.3)	272 (28.6)
e-journals	8 (.8)	165 (17.4)	92 (7.7)	400 (42.1)	286 (30.7)
e-books and texts	76 (8)	36 (3.8)	50 (5.3)	684 (71.9)	105 (10.0)
CD-ROM	77(8.1)	304(32)	96 (10.1)	293 (30.8)	181 (19.0)
e-manuscripts	63(6.6)	527(55.4)	96 (10.1)	159 (16.7)	106 (11.1)
Image databases (art, maps)	40 (4.2)	630 (66.2)	98 (10.3)	106 (11.1)	77 (8.1)
e-theses and dissertations	77(8.1)	106 (11.1)	98 (10.3)	378 (39.7)	63 (6.6)
Bibliographic databases	40 (4.1)	577(60.7)	117(12.3)	140 (14.7)	77 (8.1)
e-research guides	50 (5.3)	610 (64.1)	72 (7.6)	148 (15.6)	71(7.5)
e-magazines	55 (5.8)	709 (75.6)	68 (7.2)	75(7.9)	44 (4.6)
Library catalogues	28 (2.9)	76 (8)	122 (12.8)	492 (51.7)	233(24.5)
Online indexes	32(3.4)	458 (48.2)	143(15)	208 (21.9)	110 (11.6)
Online dictionaries	134 (14.1)	273 (28.7)	100 (10.5)	379 (39.9)	65 (6.8)
Online encyclopedias	62 (6.5)	533 (56.0)	85 (8.9)	182 (19.1)	89 (9.1)
Online directories	42 (4.4)	554 (58.3)	67(7.0)	208(21.9)	80 (8.4)
Statistical sources	42 (4.4)	392 (41.2)	183(19.2)	199 (20.9)	135 (14.2)
e-reference sources	35 (3.7)	302 (31.8)	209 (22)	287(30.2)	117 (12.3)
Sound recordings	30 (3.2)	437(46)	140 (14.2)	250 (26.3)	94 (9.9)
Institutional publications	14 (1.5)	240 (25.2)	144 (15.1)	385(40.5)	168 (17.7)
Electronic record management	41 (4.3)	512 (53.8)	183 (19.2)	151(15.9)	64 (6.7)
Electronic conference proceedings	55 (5.8)	528 (55.5)	87 (9.1)	191(20.1)	90 (9.5)
Discussion group platform	27 (2.8)	488 (51.3)	101(10.6)	249 (21.2)	86 (9.0)

As indicated in Table 3, the responses showed that out of the 22 items listed only eight were readily available across the universities. These items include full-text databases 646(68%); e-journals 686(73%); e-books 789(81.9); CD-ROMs 474(50%); e-theses and dissertations 441 (46.3%); online library catalogues 752(76.2%); online dictionaries 444(47%) and e-record management 553(58.2%). The remaining listed e-resources had lower availability rates.

Results of the Hypotheses Testing

H0$_1$: *There is no significant relationship between computer self-efficacy and users' satisfaction with the use of e-libraries in Northern Nigerian universities*

Table 4: Relationship between Users' Computer Self-efficacy and Satisfaction with e-libraries

			User-satisfaction	Comp Self-efficacy
Spearman's rho	User-satisfaction	Correlation Coefficient	1.000	.164**
		Sig. (2-tailed)	.	.000
		N	951	951
	Comp self-efficacy	Correlation Coefficient	.164**	1.000
		Sig. (2-tailed)	.000	.
		N	951	951

Correlation is significant at the 0.05 level (2-tailed)

The result presented in Table 4 showed that there was a positive correlation between the computer self-efficacy of the users and the satisfactory use of e-libraries, which was statistically significant at ($r(951) = .164$, $p = .000$). Therefore, the $H0_1$ was rejected. It implied that the users' computer self-efficacy has a significant relationship with users' satisfaction with e-libraries in these universities.

$H0_2$: *There is no significant relationship between users' perceptions of e-libraries and satisfaction with the use of e-libraries in Northern Nigerian universities*

Table 5: Relationship between Users' Perceptions and Satisfaction with e-libraries

			User-Satisfaction	Users' Perception
Spearman's rho	User-satisfaction	Correlation Coefficient	1.000	.334**
		Sig. (2-tailed)	.	.000
		N	951	951
	Users' Perceptions	Correlation Coefficient	.334**	1.000
		Sig. (2-tailed)	.000	.
		N	951	951

Correlation is significant at the 0.05 level (2-tailed)

The result presented in Table 5 showed that there was a positive correlation between the users' perceptions and their satisfaction with e-library, which was statistically significant at ($r(951) = .334$, $p = .000$). Therefore, $H0_2$ was rejected. The result implied that users' perception have a significant relationship with the satisfaction with e-libraries in universities in northern Nigeria.

Discussion of the findings

The levels of computer self-efficacy of users with e-libraries in the universities in Northern Nigeria were generally found to be good. It showed that the users of e-libraries in these universities seemed compelled by the new information order to improve and maintain their level of computer competencies. Similarly, the study established that there was a positive relationship between computer self-efficacy and satisfaction with the e-library; contrary to the null hypothesis. This finding is consistent with previous studies by Emmanuel and Sife (2008) as well as Oluwaseye and Abraham (2013) which found a positive relationship between computer self-efficacy and satisfaction with e-resources.

The perception of users of e-libraries in the universities studied was generally found to be low, since majority of them believed that there were insufficient e-resources to consult for their studies, e-library does not provide up-to-date information resources, with lack of guaranteed access, while e-library was non-useful and that information retrieval was difficult. In a situation like this, e-library users get frustrated using it. For instance, users get frustrated whenever it takes longer to retrieve information from the Internet. The poor attitude of users to e-libraries could also be as a result of poor connectivity and technical manpower problems (Oluwaseye & Ibrahim, 2013). These findings were, however, not in tandem with a study which revealed that the majority of e-library users in India exhibited very high perceptions of the facility (Chandran, 2013).

However, there were variations in the degree of usefulness of the e-resources to the respondents. For example, online dictionaries, sound recordings and institutional publications, which were only available and very useful in only very few universities. This could be due to the non-availability of other e-resources. This study found that a strong relationship exists between users' perception and satisfaction with e-libraries in these universities. It is in tandem with the finding by Akinbobola and Adeleke (2016) that, the more a user perceived a system relevant to his task the more likely they evaluate its effectiveness and ease of use (Ibrahim, 2004). Similarly, it was stated that, once the applications of the e-library are perceived to be easier to use, it is most likely to be accepted by the users[39]. However, the low perception of users found in this study could be attributed to the unreliable infrastructure upon which e-libraries relied to function effectively.

Conclusion

The study concludes that the satisfaction of users with e-libraries in the universities in Northern Nigeria was influenced by their level of computer self-efficacy and perception towards their use; in spite of some challenges, which militated against their satisfactory usage, such as power outage, poor Internet connectivity, inadequate skills to explore the available resources. These inadequacies have affected both accessibility and usage of the resources, thus, giving a

low perception towards their use of e-libraries, which include full text databases, e-journals, e-books and texts, library catalogues, e-theses and dissertations.

Recommendations

Based on the findings of the study there is therefore the need for the users to acquire computer literacy skills to enable them successfully utilise the e-libraries satisfactorily, through regular orientation on use of library particularly, the e-resources by the affected university libraries. These universities should strengthen their online academic facilities to accommodate effective computer literacy and information literacy instructions, adopt and use web-based information literacy instructional technique for students. Such web-based enabled literacy programmes would attract students to acquire such competencies easily.

The university libraries, in conjunction with the university managements, should organize seminars and workshops to sensitise the students on the essence and strategic importance of computer literacy skills to their academic pursuits. This will enhance attitudinal change of users towards developing information literacy skills and better use of the e-resources in their libraries.

The library managements should work towards meeting the information needs of e-library users by ensuring the availability of current and quality resources, to allow for more fruitful academic pursuits. The e-library managers should understand the needs and aspirations of their users by regularly reaching out using different types of existing communication methods, seeking their views on the usefulness of the e-resources and services provided for their studies.

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