

Computer Self-efficacy and Use of Electronic Resources by Students in Nigerian University Libraries

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Abstract:

Purpose: This paper looked at the extent to which computer self-efficacy can influence the easy access to information by the utilization of the library's e-resources in Nigerian universities.

Design/Methodology/Approach: Descriptive survey research approach was used. Sampled survey of students from six universities across the six (6) geographical zones in Nigeria was carried out. Questionnaires were administered on the students to collect data on their library use, computer competency and computer use. The data collected were analyzed and correlated with their computer self-efficacy scores.

Findings: It was found that, the use of library correlated with the students' use of library's e-resources. Again, the students who are computer competent expresses interest in using the library's e-resources at the same time exhibits higher self-efficacy.

Implication: The paper suggested that the adoption of digital technologies in library environment enhances the proliferation of e-resources which have tremendously changed information needs of the users. The study therefore, encourages the library managers to make adequate provision for the training of library users through the provision of adequate ICT facilities for practical interactions. This have greater impact in persuading the library users in making maximum utilization of modern libraries and its resources to seek information as opposed to the traditional ways of physical searching.

Originality/Value: It was recommended that electronic resources in the Libraries should be configured and customized in a more interactive and flexible modules to enable users with low computer self-efficacy have maximum use of them. Electronic Library Managers should embark on continuous education of e-library users on the significance of other e-resources such as e-maps and e-reports that are less utilized. Students should be engaged in periodic orientation on the need to acquire ICT skills so that they can be able to make maximum use of the available e-resources in the Library.

Keywords: Computer self-efficacy, Use of Electronic Resources, Students, Nigerian University Librarians

Introduction

A university library is one of the vital organs of the universities charged with the roles of collecting, organizing, preserving and disseminating knowledge in order to fulfill the tripartite (teaching, learning and research) objectives of the universities. This is achieved by providing the necessary services and facilities to meet the needs, expectations and aspirations of its diverse users. Today's library is regarded as powerhouse where information is stored, generated and transferred to fulfill the users need. For the optimum and satisfactory use of these libraries its users should also have adequate knowledge of access to its resources in order to fully achieve their information needs.

With the advent of digital environment and the proliferation of e-resources, it has become necessary for the libraries to be part of this trend of technological advancements and changing information needs of the users. As a result of these vital roles of the university libraries, information specialists are striving to study and understand the factors that are germane to encouraging users to seek and utilize these resources satisfactorily. More recently, a particular focus of inquiry has been on those factors that play a role in encouraging the use of modern libraries and its resources to seek information, whether physically or virtually, as opposed to the traditional ways of physical searching. These inquiries assume an even pathetic situation in light of the fact that most library users lack computer competencies to

finding information they needed. Similarly, the library may have a print subscription to a certain title that is not full-text electronically, or the title may be accessible full-text through another database than the one originally searched. So, not only do students have to find the relevant citations, but they also need to develop information literacy skills to know how to locate the article after that.

Obviously, impediment to the use of library's resources, particularly its e-resources is the lack of computer competency which affects most of the users' self-efficacy in searching the relevant resources for their study. Therefore, the proficiency of students in the use of Information Technologies (IT) in the library and to a larger extent, developing computer self-efficacy is quite germane to effectively utilizing the library electronic resources. It has been observed by (Tella, Ayeni and Omoba 2007) that an individual's self-efficacy, or his perception of his capability or ability, is intimately related to how he learns and behaves.

Although university libraries realized that it is important for users to utilize e-resources in the libraries, they are still not able to make them fully utilized the facilities provided by institutions to full potential. Studies have shown that computer self-efficacy influences the satisfactory use of modern libraries and by extension instilling self-efficacy in learning processes resulting to a fulfilled academic achievement. Compeau and Higgins, (1995) defines computer self-efficacy as one's confidence about his or her abilities to perform a computer related task successfully. It is the individuals' judgment of their capabilities to use computers in diverse situations (Marakas, et al, 1998).

It is therefore, important to understand the level of computer mastery experiences of university library users in navigating the maze of library's e-resources in order to help libraries develop and assess pedagogy designed to instruct the students in modern library use. A number of information available through e-resources, its accessibility and use by the students greatly create opportunities to improve their academic performance. This is because it provides an atmosphere that encourages sharing of knowledge in the creative process and collaborative efforts among educationists,

students, researchers and others (Tella, Tella, Ayeni and Omoba, 2007).

Students are more and more Web-savvy (Kibirge, 2000), many of them having been brought up around computers and the Internet. However, they matriculate with a diversity of computer and Web-searching skills and experience. Students may not have been exposed to library resources, or they have no awareness about which resources are available in the library, and may not know how to make use of them. It is therefore of interest to study and understand what characteristics needed to be possessed to be able to explore these library resources which is lacking.

Literature Review

University Library

The main objective of universities is to promote scholarship through teaching, learning and research in the various fields of learning. As stated in the National Policy on Education, one of the goals of university education is to acquire both physical and intellectual skills, to enable individuals to become self-reliant and useful members of the society (FME, 2004). Behind the mission and vision of the university education is the university library, known as academic library by classification, which stimulates the main objective of any university. Akpohonor (2005) stated that academic libraries are normally attached to tertiary institutions such as universities, polytechnics and colleges of education, colleges of agriculture, colleges of technology and also research institutes. Yusuf and Iwu (2010) described academic libraries as the nerve centers or the hub around which scholarship revolves. It is an indispensable instrument for intellectual development, being a store house of information to which user (students as well as lecturers) may turn for accessing information.

The university libraries play supportive role to the university education by providing necessary information resources and services, which enable the libraries to meeting the needs, expectations and aspirations of their teaming users. These resources, according to Yusuf and Iwu (2010), are reference materials, textbooks, journals, newspapers, past projects, electronic journals etc. Nwezeh and Shabi (2011) also listed resources like books, journals, newspapers, government publications, indexes

and abstracts as common information materials provided and utilized by academic libraries.

The advent of ICT has come to change the role of libraries in terms of provision of information resources and services as pointed by Etim (2004); noting that the rapid pace of development in the field of IT and the emergence of networked information services had prompted a comprehensive review of the library and information science profession. As stated by Mohamed (2007), the use of ICT has become increasingly important in libraries. Thus, there is a clear departure from manual ways of carrying out information services and provision of information resources in the university libraries in this century, with university libraries in Nigeria also embracing the trends. Accordingly, considerable investments are being tailored toward acquiring e-resources in Nigerian universities bringing up the issue of the extent of usage and users' satisfaction with these resources in these libraries. Studies by Olawaseye and Abraham (2013), Ojo and Akande (2005), Egberongbe (2011) and Sharma (2009) revealed that practical uses of e-resources are not up to the worth in comparison to investments made in acquiring these resources.

Self-efficacy

A number of studies on self-efficacy were concentrated on the relationship between self-efficacy and performance, especially academic performance. It is the belief in one's capability to organize and execute the course of action required to manage prospective situations (Bandura, 1999). Students' self-efficacy beliefs, as stated by (Pajares 1997), are correlated with other motivation constructs and with students' academic performances and achievement. Constructs in these case, according to Waldman (2003) includes attributions, goal setting, modeling, problem solving, test and domain-specific anxiety, reward contingencies, self-regulation, social comparisons, strategy training, other self-beliefs and expectancy constructs, and varied academic performances across domains. Studies have found that the interpretation of one's own performance is the most influential source of self-efficacy information ([Bates and Khasawneh, 2007](#), [Britner and Pajares, 2006](#)).

Therefore, students with high self-efficacy as stated by Tella, Tella, Ayeni and Omoba (2007) will be more likely to take advantage of what is around them. For example, electronic information facilities and resources like Internet,

electronic journals, CD-ROM database, etc. If they are familiar and feel comfortable with them they will use them, and if they feel that learning through these electronic information resources will enhance their academic performance, they will learn about them.

Justifiably, in their study of self-efficacy and use of electronic information as predictors of academic performance, Tella, et al (2007) found that, self-efficacy and use of electronic information jointly predict and contribute significantly to academic performance of students.

Through a survey administered to a class of freshmen by (Waldman 2003) on their use of library electronic resources and self-efficacy, it was found that while age and gender were not related to use of electronic resources, self-efficacy was.

Ren (2003) believed that, people generally are more interested in performing activities in which they have high self-efficacy. They also take advantage of what is around them. Hence it is not surprising that the better use of electronic information by high self-efficacy respondents results in better performance than the low self-efficacy group in this study.

Use of E-Resources

The use of e-resources though, highly embraced by users generally but for some infrastructural and skills challenges. For example the investigation carried out by Issa, Amusan and Daura (2009) shows that most students are aware of the e-library resources but are not utilized do to their lack of computer skills. Oluwaseye and Abraham (2013) reported low patronage of e-resources in institutions in Oyo state due to the challenges observed by Issa, et al. (2009).

Ojo and Akande (2005) in a survey of 350 respondents examined undergraduate's access, usage and awareness of online information resources at the University College Hospital (UCH) Ibadan, Nigeria, also revealed that the level of usage of the electronic information resources by undergraduates is not high. This they attributed to lack of information retrieval skills for exploiting electronic resources, thus making the level of usage of resources by medical students very low.

The study of use and impact of e-resources in University of Lagos by Egberongbe (2011) showed that the uses of e-resources are very

common among the lecturers and research scholars of University of Lagos, but like Sharma (2009) revealed that practical uses of e-resources are not up to the worth in comparison to investments made in acquiring these resources. She believed that infrastructure and training programmes are required for better use of electronic resources campus-wide. It is evident from the analysis that the availability of e-resources on the campus is almost sufficient for all the existing disciplines but that the infrastructure to use the resources is not adequate and is actually hindering the ability to meet the requirements of users.

In the same vain, Isah (2010) studied the use of e-resources by academic staff of university of Ilorin and found that, all academic staffs are aware of the existence of electronic library and e-resources in the University, this invaluable information sources have not been fully utilized. This may be due to the one or more challenges enumerated above.

Issa, et al (2009) in their study of effects of information literacy skills on the use of e-library resources among students of the University of Ilorin, Nigeria, found that only slightly more than one third of respondents are aware of and use the e-library facilities. They also found that more than half the respondents avoid using the e-library due to their inability to use e-resources. Although, this study was carried out before the university policy on one- student- one laptop so it will not be out of place to find the low utilization of e-library by students in the university

Electronic resources were found to be very valuable for research and scholarly communication. They are more up-to-date, can be accessed anywhere across all geographical boundaries and add values to research and development activities (Haridasan and Khan 2009). Mwirigi (2012) studied the use of e-resources in Kenya school of law and found that the patrons are not adequately using the resources because the awareness levels of the resources availability are not adequate. Awareness of existing e-resources and their ease

of use are factors that could influence the adoption and use of these resources.

Research Objectives

The main objective of the study is to assess the extent to which the library users' self-efficacy affects the use of e-resources in Nigerian university libraries. The followings serve as the specific objectives of the study

1. Determine the combined influence of computer self-efficacy on library user-satisfaction;
2. Assess the comparative influence of computer self-efficacy and e-resources to the expectation of library user satisfaction;
3. Determine the most used e-resources by library users,
4. Find the Frequency of Library Use by Students in Nigerian Universities
5. Find out the Information Needs of Students Using the Libraries

Methodology

This study was confined to all categories of library users in six universities in Nigeria; each university was selected from the six geopolitical zones in Nigeria. Six hundred (600) library users were sampled for the study. One hundred (100) library users were randomly selected from each university across the six geopolitical zones.

The study adopted a descriptive survey research approach to find out the influence of self-efficacy on the effective and efficient utilization of e-resources in Nigerian University libraries. Questionnaires were used to collect information from the users. A total of 600 questionnaires were distributed, out of which, four hundred and seventy four (474), which forms 79% of the respondents were duly filled and returned. The table below shows the distribution of questionnaires and rate of return: Table 1 below presents the questionnaire distribution and the rate of return for the study.

Table 1: Questionnaires Distribution and Rate of Return

| Selected Universities | Total Questionnaire Administered | Total Returned | |
|------------------------------------|----------------------------------|----------------|------------|
| | | N | % |
| 1. Obafemi Awolowo University, Ife | 100 | 82 | 82 |
| 2. Abrose Ali University, Ekpoma | 100 | 75 | 75 |
| 3. Enugu State University | 100 | 76 | 76 |
| 4. Bayero University, Kano | 100 | 73 | 73 |
| 5. Gombe State University, Gombe | 100 | 84 | 84 |
| 6. University of Abuja, Abuja | 100 | 84 | 84 |
| TOTAL | 600 | 474 | 79% |

Method of Data Analyses

Responses to questionnaires were coded and fed into SPSS statistical package (version 20) for analysis using variance (ANOVA). The ANOVA was used to reveal the effects of independent variables (self-efficacy) on an interval dependent variable (use of e-resources) and dependent variable (user-satisfaction). This procedure adopts the statistic (F) to test the statistical significance of the differences among

the obtained means of two or more random samples from a given population. The statistic (F) is a ratio, which, if adequately larger than 1, indicates that the perceived differences among the achieved means are statistically significant.

Results

The regression analysis was used to test the combined influence of self-efficacy and the e-resources on library use as shown in table 1:

Table 2: Regression Analysis on library use data

| Source | DF | ∑ of Square | Mean Square |
|---------------|-----|---------------|-------------|
| Regression | 2 | 337.4766 | 112.4922 |
| Residual | 679 | 3257.80343 | 4.67403649 |
| <i>F=24.8</i> | | <i>F=.099</i> | |

As indicated in Table 1, the two independent variables (self-efficacy and e-resources) have a combined influence of .9% on the library use of the respondents. The result of the ANOVA that

was carried out on multiple regression data formed an F=24.78 of which was substantial at 0.05 Alpha level.

Table 3: The Comparative Influence of Computer Self-Efficacy and E-Resources on Library User Satisfaction

| Model | co-efficients (Unstandardized) | | co-efficients (standardized) | T | P |
|------------------------|--------------------------------|----------------|------------------------------|------|-------|
| | B | Standard Error | Beta | | |
| Constant | 15.360 | 3.212 | | 5.23 | <0.05 |
| Computer Self-Efficacy | 0.291 | 0.062 | 0.117 | 2.02 | <0.05 |
| Use of e-resource | 0.377 | 0.036 | 0.226 | 2.45 | <0.05 |

As shown in Table 2, the two variables (computer self-efficacy and use of e-resources), caused a significant influence on the satisfactory use of libraries, but the use of e-resources was more significant to the satisfaction of library users with a *Beta= .226; t= 2.45; P= < .05 Alpha level*, while Self-efficacy was at *Beta= .117; t= 2.03; P<.05*.

Those students with higher computer self-efficacy inclined to use the e-resources more often and most likely would be more satisfactory with library use. This affirmed the research finding of Waldman (2003) who stated that self-efficacious students tend to be more active academically and mostly use the e-resources available to them.

Figure 1: Use of E-Resources by Students in Nigerian Universities

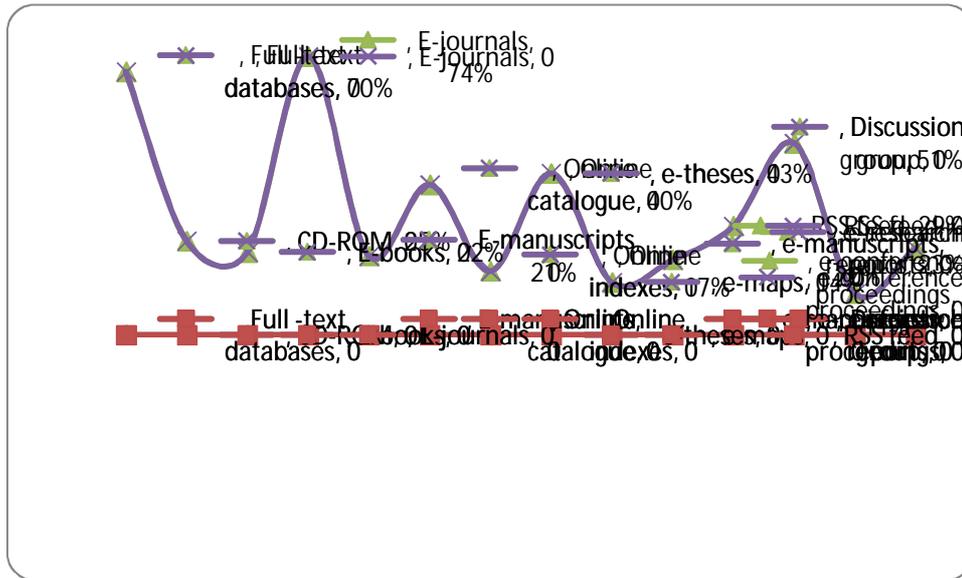


Table 3 revealed the e-resources mostly used by the respondents in universities in Nigeria. The result showed that out of the listed e-resources; full-text databases, e-journals and online discussion group appeals more to the students. As indicated, 70% and 74% of the students respectively mostly use these e-resources for

their studies. The least used e-resources by the students are e-maps and e-research reports. This result corroborates that of Sadiku (2015) who studied the use of e-resources in universities in northern Nigeria. The study found that e-journals and full text databases were mostly used by users with e-libraries

Figure 2: Frequency of Library Use by Students in Nigerian Universities

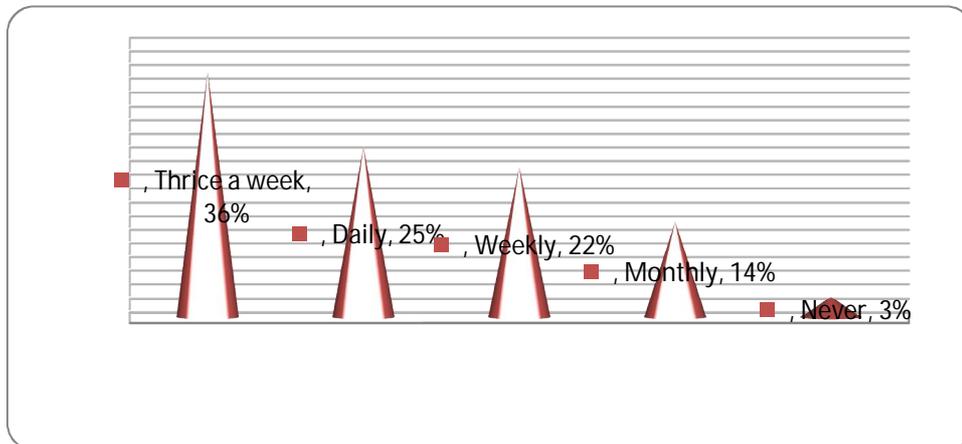
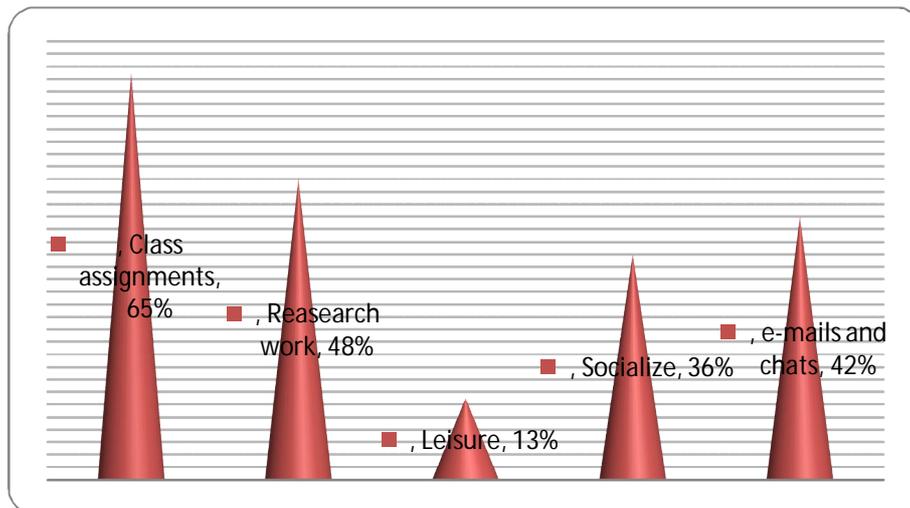


Table 4 revealed the respondents view on the frequency of library use. From the presentation, 36% of the students used libraries thrice a week, 25% daily, 22% monthly 14% weekly and the least (3%) of the students never use libraries in Nigerian universities. This indicates that students who use the library more frequently are

more likely to report using the library's electronic resources than those who rarely used the library. It seems that being in the library environment influences students' awareness of the resources available to them, even if they do not make use of them.

Figure 3: Information Needs of Students Using the Libraries

Asked what their information needs are when using libraries, 65% of the students reported that they need information to carry out class assignments, 48% to carry out research work, 13% use the library for leisure, 36% also use the library to socialize with others, 42% go to library to check e-mails and online chatting. From the table, it is clear that student mostly use the libraries for their class assignment and research work. This finding corroborates that of Qadri, Adetimirin and Idowu (2014) and Bruce Heterick (2012) who found that users with e-libraries mostly used it for their class assignment.

Discussion of Findings

It was discovered that computer self-efficacy and use of e-resources, caused a significant influence on the satisfactory use of libraries, but the use of e-resources was more significant to the satisfaction of library users with a $Beta = .226$; $t = 2.45$; $P < .05$ Alpha level, while Self-efficacy was at $Beta = .117$; $t = 2.03$; $P < .05$. Those students with higher computer self-efficacy inclined to use the e-resources more often and most likely would be more satisfactory with library use. Again, the finding revealed that out of the listed e-resources; full-text databases, e-journals and online discussion group appeals more to the students. Also, 70% and 74% of the students respectively mostly use these e-resources for their studies. The least used e-resources by the students are e-maps and e-research reports.

Furthermore, it was gathered that 36% of the students used libraries thrice a week, 25% daily, 22% monthly, 14% weekly and the least (3%) of

the students never use libraries in Nigerian universities. This indicates that students who use the library more frequently are more likely to report using the library's electronic resources than those who rarely used the library. 65% of the students reported that they need information to carry out class assignments, 48% to carry out research work, 13% use the library for leisure, 36% also use the library to socialize with others, 42% go to library to check e-mails and online chatting. From this discussion, it is clear that students mostly use the libraries for their class assignment and research work.

Conclusion

The adoption of digital technologies in library environment enhances the proliferation of e-resources which have tremendously changed information needs of the users. As a result of these technological advancement in the university libraries, information providers are striving to understand the factors that are pertinent to encouraging users to seek and utilize these resources satisfactorily. This has also encouraged the users to make maximum utilization of modern libraries and its resources to seek information as opposed to the traditional ways of physical searching. It is lamentable that most library users lack computer competencies to finding information they needed.

Recommendation

The following are recommended based on the outcome of the research findings:

1. Electronic resources in the Libraries should be configured and customized in a more interactive and flexible modules to

- enable users with low computer self-efficacy have maximum use of them;
2. Electronic Library Managers should embark on continuous education of e-library users on the significance of other e-resources such as e-maps and e-reports that are less utilized;
 3. Students should be engaged in periodic orientation on the need to acquire ICT skills so that they can be able to make maximum use of the available e-resources in the Library.

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