

Fall 5-30-2019

COMPUTER SELF-EFFICACY AS DETERMINANT TO THE USE OF ONLINE PUBLIC ACCESS CATALOGUE: A CASE STUDY OF SELECTED UNIVERSITIES IN NIGER DELTA REGION

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<https://digitalcommons.unl.edu/libphilprac/2943>

**COMPUTER SELF-EFFICACY AS DETERMINANT TO THE USE OF ONLINE
PUBLIC ACCESS CATALOGUE: A CASE STUDY OF SELECTED UNIVERSITIES IN
NIGER DELTA REGION**

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ABSTRACT

The research surveyed computer self-efficacy as determinants to the use of online public access catalogue. Based on a detailed literature review, a total of three research questions were raised: What are the available access points for the use of OPAC by the library users? What are the various search methods/technique used by users to locate needed materials through the OPAC? And what is the level of the user's computer self-efficacy? The study adopted the descriptive survey design. The population of the study is made up of 18,332 registered under -graduate library users and the sampling size of 920. The findings from the study are as follows: The major access points through which information are accessed using OPAC are Author, Title and Subject access points, Keyword search, Simple search, basic search, Boolean search method and phrase searching ranked high in the search methods applied by the respondents in searching through OPACs and also the respondents seem to exhibit a positive computer self-efficacy and as such may be more akin to using OPAC. The study thus concluded by giving the following recommendations: Efforts should be geared towards inculcating on university students a practical training of the use of computer, Universities should be equipped with the enabling infrastructure such as adequate power supply, effective Internet connectivity etc. that will encourage the use of OPAC, University libraries should formulate policies that would encourage mandatory use of OPACs.

Keywords: Self Efficacy, Computer Self Efficacy, OPAC, Information Retrieval, Database, Academic Libraries, Library Users.

INTRODUCTION

Background of the Study

The introduction of Online Public access Catalogue (OPAC) has greatly informed and influenced changes in access and retrieval of information resources in the library. While this development is a step forward in the field of librarianship and library practice, it is pertinent to determine its use and the computer self-efficacy of its users. The term self-efficacy as seen by Hopper (2019) refers to an individual's confidence in their ability to complete a task or achieve a goal. It is a person's believe or level of confidence about his/her ability or capability to carry out or attain a set goal and produce results while computer self-efficacy is the degree of an individual's perceived ability to use a computer. It is a measure of an individual's judgment of his or her own abilities with computers, an assessment of self-confidence (Durndell, Haag & Laithwaite, 2000).Also, it is defined as self-assessment regarding one's computer skills (Venkatesh & Davis, 1996).Computer self-efficacy is related more to computer management ability for a particular task than to partial computer skills in information technology (Compeau & Higgins, 1995).

Thatcher and Pamela (2002) reported that personal innovativeness in information technology will be positively related to computer self-efficacy. Computer self- efficacy has been studied in different domains. For instance, computer self-efficacy had a positive influence on the computer learning performance (Yi & Im, 2004). Several studies have been conducted to study the influence of computer self- efficacy on the technology intention model (Shu, Tu & Wang, 2011). Compeau and Higgins (1995) have proposed three dimensions of computer self-efficacy these are: the “magnitude of computer self-efficacy” which is defined as the extent to which people believe they can accomplish difficult tasks using a computer; the “strength of computer self- efficacy” which is interpreted as reflecting the power of self-judgment by individuals and

the “generalisation of computer self- efficacy” which refers to the perception by people of their ability to use various computer software and hardware devices.

Online Public Access Catalogue (OPAC) contains all the bibliographic information of an information centre; it could also be looked at as the entryway by which one can access the contents of an information centre. OPAC is the modern and flexible form of the catalogue, usually instantaneous and sophisticated access to any recorded information within a computer (Sankari et al. 2013). Online Dictionary for Library and Information Science (ODLIS) defines OPAC as, “An acronym for online public access catalogue, a database composed of bibliographic records describing the books and other materials owned by a library or library system, accessible via public terminals or workstations usually concentrated near the reference desk to make it easy for users to request the assistance of a trained reference librarian. Most online catalogues are searchable by author, title, subject, and keywords and allow users to print, download, or export records to an e-mail account.

Computer self-efficacy studies in the past have used student subjects at university level (Karsten & Roth, 1998a; 1998b; Langford & Reeves, 1998). Overall, these studies showed that higher levels of computer self-efficacy corresponded to increased performance in OPAC use and a greater achievement of computer competency. Today, a number of libraries are providing OPAC services to their users to be able to locate documents with ease. In such a situation, the libraries should examine periodically how much comfort the users feel with the OPAC service so that some initiatives could be proactively taken to improve the use of the facility. It is of great importance to determine how frequently the users use OPAC to locate their required documents.

Statement of the Problem

The functional inadequacies exhibited by the university library users in the area of OPAC use coupled with the user's low confidence in their ability to use the computer, limit their total utilization of resources and information retrieval output. The researcher has observed that even when enough infrastructural facilities are made available in terms of OPAC computer terminals and enabling environment, very few users still utilize the OPAC system in moderate capacity. This observation requires an empirical study. Hence, this study is designed to examine computer self-efficacy, as determinants to online public access catalogue use amongst selected universities in Niger Delta region.

Research Questions

The following research questions will be answered in this study:

- i. What are the available access points for the use of OPAC by the library users?
- ii. What are the various search methods/technique used by users to locate needed materials through the OPAC?
- iii. What is the level of the user's computer self-efficacy?

REVIEW OF RELATED LITERATURE

Available Access Point Used by Library Users

The on line public access catalogue (OPAC) complements the card catalogue and provides access to library collection in more convenient and easy ways. Access points are the approaches or ways through which users search for their information resources in order to meet their needs, one of the many things OPACs does is to broaden access to the information within a library. Access to information beyond a given library is increasing, too, as a variety of online tools becomes available through either single terminals or multiple work stations. Yusuf and Iwu (2010) study indicates that 61.9% of students use OPAC to access library materials. They attributed this positive development to the result of compulsory orientation programmes organized by the library for the first year students of Covenant University, Ota, Nigeria. Although the study shows that only 10.0% of faculty respondents use the OPAC. This may be as a result of lack of awareness of OPAC service or skill to use it. It is expected that faculty members should use OPAC more since they have access to the internet in their various offices and or laboratories. Ordinarily, they will want to be sure of that the library has the materials they need before they come to library to borrow the materials. This may likely trigger the use of OPAC although the study did not show that the library under study operates a web-based OPAC.

However, with the development in information technologies and the trends in the provision of effective library services, information searchers should be able to access library OPAC in their offices, homes, hostels, lecture rooms or laboratories at any time before coming to the library to borrow the materials. Villen-Rueda et al (2007) studied the use of OPACs in the library of University of Granada and pointed out that the searches made by author name and title of the searched material were preferred. Furthermore, a survey conducted by Mulla and

Chandrashakara (2009) shows that 52 % of library users access the OPAC within the library premises while only 10.44% access through the Internet and 9.34% access it on the network on the college campus. Although, their study does not show reason why majority of library users access library OPAC only within the library premises, perhaps it is due to lack of awareness or cost of internet connectivity that is preventing information searchers from accessing OPAC outside the library premises.

OPAC is a retrieval system that provides multiple ways to search for books and other library materials (Adigun et al 2011) that is why Fabunmi and Asubioju (2013) in their introduction noted that OPAC is an information retrieval system which assists information users to access resources of libraries using several access points such as author, subject, title or key word search. Chisman, Diller and Wabridge (2009) also outlined eight access points through which students search for information on the library OPAC, they include:

- i. **Author:** this is the name of the writers of the information resource.
- ii. **Subject matter:** this refers to the students areas of the information material.
- iii. **Class mark:** a unique mark (a number) given to all processed information resources in the library.
- iv. **ISBN:** an acronym for ‘international standards book number, given to every published book.
- v. **ISSN:** an acronym for ‘international standards serial number, given to every published serial publication like journals.
- vi. **Title** of the information resources, usually in full without abbreviation.
- vii. **Publisher** or place of publication

OPAC as posited by Ruzegwa (2012) can be accessed by or from anywhere in the world, even from the palm of their hand. Whenever the users want to confirm the availability of a required document in the stock of the library, they can approach the OPAC with any of the search elements viz..., author, title, subject, call number, classification number, series, and ISBN (Sankari et al 2013). According to a study on OPAC user behaviour of foreign post graduate students at the University of Malaya Library, by Ariyapala and Edzan (2002), title searches were used most frequently. Even though users expressed the opinion that OPAC was relatively easy to use, most students were only moderately successful in locating various items. Mutshewa (2008) notes that information retrieval system ought to be flexible tools, capable of providing the users with information on various subject areas, as well as allowing the user to perform a wide range of information activities which include allowing the searcher to refine his/her search without losing the search history. Chowdbury (2004) classifies information retrieval systems into two broad categories: **In-house:** In-house are those that are developed in-house with the objectives of serving mainly the users within the organization for example, Library catalogue and **Online:** Online are those information retrieval systems that are designed to provide access to remote databases to a variety of users.

The OPACs allow users to access resources of libraries, publishers, and online vendors (Guha & Saraf, 2005). Ruzegwa (2012) noted that search and retrieval of library materials has become easy due to OPAC, but it has been observed in some instances, that users are not coping with this change. There seems to be two reasons for this. Firstly, some users lack computer knowledge and hence are reluctant to accept the change and secondly, the designs of the interfaces of some systems are not user friendly (Umarani et al 2008). Umarani and others observed that personal and extended help is possible from library staff to the users to search

OPAC effectively within the library. But it becomes difficult to provide such a help to online users. Therefore, it becomes essential to design user friendly OPACs and to test them for usability on a regular basis.

An attempt was made by Kumar and Vohra (2011) to know the most used approaches (search methods) through OPAC at Panjab University Library, Chandigarh, highlights on the awareness about these access points and the frequency of their usage indicates that all the users were aware of the existence of author and title as access points in OPAC. As a result, 46(30.5 per cent) users searched the documents by title very frequently, one-third searched the documents by title frequently, one fourth search the documents by title occasionally, only 14 (9.3 per cent) searched the documents by title rarely. Almost similar results were observed in case of Author access point. Only 17 (11.2 per cent) users were not aware of subject access point. One-fifth of the users used subject approach regularly (very frequently and frequently). Similarly, only 20 (13.2 per cent) used it occasionally, almost one-fifth of the users use it rarely and almost one-third of users used it never. Almost three-fourth of users was aware of keyword and a significant number of users were not aware of call/class number and combined search. The data reveals that a few users used keyword approach and very few call/class number and combined search. It is clear from the highlights that author and title were the most used access point through OPAC.

Similarly, Malliari and Kyriaki-Manessi (2007) investigate the type of searches conducted by users of OPAC in the University of Macedonia and their report shows that 41% of the users prefer to use the title of information materials for their first search in OPAC; 27% prefer to search the OPAC using author's name; 23% prefer subject search type while 8.0% use basic keyword, series, ISBN/ISSN. Their study shows that only 4 % actually claim that they use ISBN and ISSN to search OPAC. These are bibliographic data that information searchers cannot easily

remember because it requires notes and precision. Moreover, most of the respondents do not use all the available search facilities in the OPAC. Therefore, they conclude that users do not use all of the OPAC potential for searching. Omolaju (2010) stated that using the authors name and title of the information materials are two major access points used by majority of student in searching for information via the OPAC system. Only few students tend to use the ISBN and ISSN to search for information material via the OPAC. This is because ISBN and ISSN contain long digits of number that cannot be easily remembered by the student when searching for information material via the OPAC system. Priyanwada and Wanigasoriya (2013) found that 96.70% of student searched OPA using author, 92.6% used title, 30.22% used subject, 8.68% used accession number, 19.32% used classification number, and 13.74% used ISBN/ISSN, while 11% used series. The study concluded that most of the student already know the material they are searching for before entering the library and searching through the OPAC system, while other student respond to the system by searching randomly without any particular author or subject in mind.

OPAC Search Methods and Techniques Used by Library Users

OPAC offer vast capacities and capabilities foe searching like advanced search, keyword search, Boolean search and Truncation search as compared to the traditional card- based catalogue search options (Kumar &Vohra, 2013).In manual methods, the users have to spend considerable time in searching for a document; however, many of the search options available in OPAC tend to create complexity for users. Lau and Goh (2006), in their study conducted at Nanyang Technological University, Singapore, discovered that a majority of the queries were simple and short using least Boolean operators. Further, an analysis of search failures revealed

that on the average, users had an almost equal probability of obtaining no records or at list one record to the submitted queries.

Moreover, there are several search facilities in OPAC that user can use to fast track retrieval of exact bibliographic records of any document without having to skim through long list recall of records retrieve in one search. Dinet, Favart and Passerault (2004) reiterate that Boolean operators must be used to combine keywords when searching electronic databases because using these operators might lead to a more focused, quick and easy search and retrieval of the needed bibliographic records. However, Ansari and Amita (2008) study shows that not many users are aware of the expert searching feature of OPAC system. Experts search helps users to do a precision search using a combination of keywords, search types, search operation and parentheses. Information searchers can combine keywords, search types, Boolean operators and parentheses. More so, searchers can include or exclude any particular type of information resource for example bibliographies, dictionaries, abstracts, etc. from their search. However, Ansari's study does not show the level of their respondents' information searching skills. It may be necessary to examine their information literacy skills.

Kumar and Vohra (2011) study has examined the Online Public Access Catalogue usage by the students and faculty of Panjab University Library, Chandigarh. OPAC, an information retrieval system, has revolutionised access to bibliographic information through search capabilities such as keyword searching, Boolean searching, truncation, proximity searching, and item identity number searching. According to the OPAC of Tun Abdul Razak Library (2014), searching methods are of two major types: keyword search and subject search. Understanding the difference between those two, will help students to search for information effectively:

1. Keyword Search

When the user select a keyword search, by actually asking the computer to scan all words in a record, including title, abstract, author.

2. Subject Search

Search using standardized words or phrases chosen by experts in the field. These subject headings or descriptors describe the main topics of each article or book. A subject search reads only the subject field of a record, so you will get more precise search results and the Subject searching is only available within OPAC and subscribed databases, but not in Google or Yahoo.

Yee, (2003) on the Guidelines for OPAC Displays identified at least four types of searching in existing online public access catalogues:

- **Keyword-within-heading searching**, in which the user types in keywords that the system matches against the words in a single heading in a headings index in which headings are linked to bibliographic records. Keywords are matched to words in the heading without regard to order. The result of the search is a display of headings.
- **Exact-beginning searching** , in which the user types in a string of characters that the system matches against headings in a headings index in which headings are linked to bibliographic records. The user's string is matched in the exact order in which the user typed them, with the first word of the search being matched against the first word of the heading. The result of the search is a display of headings.
- **Phrase searching**, in which the user types in a string of characters that the system matches against headings or other fields in bibliographic records. The user's string is matched in the exact order in which the user typed them, but without regard for the first words of fields or headings. If

only headings are searched this way, the result should be a display of headings from the headings index linked to bibliographic records. If non heading fields are searched this way, the only possible result would be a direct display of bibliographic records matched.

- **Keyword-within-record searching**, in which the user types in keywords that the system matches without regard to order against all words in a single bibliographic record, or all words in a group of fields within a single bibliographic record, such as all fields containing subject terms or all title fields. The only possible result of such a search would be a direct display of bibliographic records matched, since the search can easily match words that are not in a heading field, or words that are in more than one heading field. Heretofore, systems have not applied this kind of searching to authority records, so generally cross-references are not matched on or retrieved from this kind of search.

The author went further to state that the guidelines are not intended to address the question of the ideal types of searching that should be provided in OPACs. These types of searching are defined here only because the displays that are available to the user often depend on the type of searching that resulted in the displays. For example, any type of keyword-within-record searching cannot result in headings displays, since the search could easily match a field which is not a heading at all, or it could match several different heading fields.). The study by Sankari et al (2013) reveals that only two t of the users that combine term using Boolean operations. They thereby infer that users do not know the systems capabilities and or they hesitate to use it. The low usage may also be as a result of OPAC system not being user friendly which may not readily provide the search options, its layout and proper setting of the system screen. Hence, they advocate the need for user education and support systems. Some current studies explore search

methods through OPAC concluded also that author and title approach ranked the highest percentage in terms of use of OPAC.

Abdullah (2000) in a study carried out on the search behaviour of international graduate students of Florida State University, reported that users preferred the keyword approach for unknown item searches and the author name approach for known item search. He observed that users underutilized the advance features beyond the Boolean operators and tended to learn the system usage through personal exploration. Sridhar (2004) studied user behaviour on OPAC at the ISRO Satellite Centre Library in Bangalore, India and compared it with the findings of a study on card catalogue usage, of the same library, conducted 17 years ago. The study revealed that searches by title had substantially increased from 8 % on the card catalogue to 38.3 % on the OPAC. Also subject searches dropped substantially from 54.2 %t in the case of the card catalogue to almost half ay 30.7 % on the OPAC.

Level of Computer Self-efficacy of Library Users

Computers have made a dramatic impact on our society, particularly in the field of librarianship. In so far as computers aids the successful utilization of online public access catalogue (OPAC) services in the library, it is crucial for all users to become familiar and comfortable with their use. In order to ensure effective OPAC use; libraries need to measure and determine the extent of its users computer self- efficacy. That is why Barbeite and Weiss (2004) posited in their study that it would be particularly important to establish measurement equivalence for measure of psychological construct that impacts an individual's use of computer or performance on computer-based task; one of such variable is computer self- efficacy.

Bandura who was the first writer to use the term self-efficacy in 1977 defined self-efficacy as “people’s judgments of their capabilities to organize and execute courses of action required to

attain designated types of performances (Bandura, 1986). Self-efficacy is an important psychological construct in understanding the reason people choose to pursue particular activities and the extent of effort they devote to these. Self-efficacy as posited by Embi (2007) is a result or outcome of the belief that one has the confidence and the ability to execute the courses of actions required to deal with a given situation in which they are trained. Schwarzer and Schmitz (2005) opined that a strong sense of competence facilitates cognitive process and performance in a variety of setting, including quality of decision-making and achievement. People with high self- efficacy choose to perform more challenging tasks and are creative (Bandura, 1997). The term self-efficacy was extended to particular domains, including the use of computers (Khorrami-Arani, 2001). Computer self -efficacy is a measure of an individual's judgment of his or her own abilities with computers, an assessment of self-confidence (Durndell, Haag, & Laithwaite, 2000).

Computer self- efficacy refers to a judgement of one's capability to use a computer (Compeau & Higgins, 1995). Delcourt and Kinzie (1993) defined computer self-efficacy as a measure of how confident computer users are with their ability to understand, use, and apply computer knowledge and skills. The authors found that individuals who have high computer self-efficacy will feel competent in using different computer hardware and software. However, a low computer self-efficacy leads to the belief that individuals will encounter difficulty in using computers hardware and software. Furthermore, a study by Czaja et al (2006) among 1,204 adults (men = 454, female =750) ranging in age from 18 to 91 years found that computer self-efficacy was an important predictor of general use of technology and that people with lower self-efficacy are less likely to use technology in general.

High self-efficacy also allows people to select challenging settings, explore their environment or create new ones (Schwarzer & Schmitz, 2005). Without self-efficacy, individuals give up trying accomplish their goals, making self-limiting decisions that foreclose opportunities even though individual have the necessary skills to follow a path of action (Bandura in Lucas & Cooper,2005). Computer self-efficacy studies have used student subjects at a university level (Karsten & Roth, 1998a; 1998b; Langford & Reeves, 1998). Overall, these studies showed that higher levels of computer self-efficacy corresponded to increased performance in computer courses and a greater achievement of computer competency. A study conducted by Wallace (1999) investigated and described four main factors that Influenced the development of computer self-efficacy. These factors were computer anxiety, computer confidence, computer-liking and computer knowledge. He demonstrated a significant correlation between the computer self-efficacy model (composed of the four mentioned factors) and a 3-item measure of computer self-efficacy, further confirming that the model was a valid means to explore components of the computer self-efficacy construct. Comparisons were made between the computer self-efficacy of education and computing students.

Many instruments have been developed to measure computer self-efficacy, there are measurement tools developed by Hill, Smith, and Mann(1987), Murphy, Coover, and Owen (1989), Delcourt and Kinzie (1993), Busch (1995), Compeau and Higgins (1995), & Durndell, Haag, and Laithwaite (2000). Several computer self-efficacy measures were found in the literature, but no single measure is universally accepted. The first computer self-efficacy scale was introduced by Murphy et al (1989) with 32-items to measure an individual's perceptions of his capability regarding specific computer related knowledge and skills. The instrument was administered to 414 individuals that included graduate students, adult vocational students, and

professional nurses learning to use computers. The authors used the 5 point Likert-type format (1 = very little confidence to 5 = quite a lot of confidence), and participating respondents were asked to indicate the degree to which they felt. The authors performed factor analysis with an oblique rotation which produced three factors concerning computer skills (a) beginning level, (b) conceptual (advanced), and (c) mainframe. The reported Cronbach's alpha for the three empirically derived factors was .97, .96, and .92, respectively.

Many researchers have adapted the original Murphy computer self-efficacy scale (Langford & Reeves, 1998; Davis & Davis, 1990 and Harrison & Rainer, 1992) while others have adapted a slightly modified version of the Murphy scale for their study (Karsten & Roth, 1998a; Karsten & Roth, 1998b; Torkzadeh & Koufteros, 1994; Delcourt & Kinzie, 1993; Ertmer et al., 1994; Qutami & Abu-Jaber, 1997; Zhang & Espinoza, 1998).

Harrison and Rainer (1992) replicated the factor structure found by Murphy et al (1989) in their study to measure respondent perceptions regarding specific computer-related knowledge and skills. The instrument was administered to 693 university personnel who fully completed the survey. The participant group derived from four broad university job categories: (a) clerical, (b) technical, (c) faculty, and (d) administrative. The Cronbach's alpha coefficients for the three subscales on the computer self-efficacy skill scale were .97 on the beginning, .95 on the advanced, and .98 on the mainframe. Torkzadeh and Koufteros (1994) used the 32-item scale with slight modification from Harrison and Rainer (1992). The authors removed two items from the original scale and opted to alter a Likert scale (1 = strongly disagree to 5 = strongly agree). The items removed were (a) using the computer to analyse number data, and (b) learning advanced skills within a specific program (software). The authors administered the instrument to 224 business undergraduates (male=125, female = 99) at a large state university in the Midwest

of the United States at the beginning and at the end of an introductory computer course. The authors examined factorial validity of this instrument with an oblique rotation and recommended a four-factor skill solution which was identified as: beginning, mainframe, advanced and file and software. The authors reported reliability for each factor as .94, .96, .90, .91 respectively.

Compeau and Higgins (1995) developed and tested a measure of computer self-efficacy, using a survey in an effort to understand the impact of self-efficacy on individual reactions to computer technology in business and industry. Bandura's (1997) social cognitive theory was employed to create a model for testing the effects of computer self-efficacy. The researchers' 10-item computer self-efficacy measure was designed to be task focused and to incorporate elements of task difficulty including computer use, anxiety, affect, outcome expectations, and organizational support, as well as encouragement by others. This survey was administered to 1,020 managers and professionals including insurance adjusters, financial analysts, researchers, consultants, and accountants. Their research concluded that computer self-efficacy influences individuals' use of the computer and learning to use computers, and empirically verified a strong link between self-efficacy and individual reactions to computing technology. They also found that computer self-efficacy exerted significant influence on individuals' expectations of the outcomes of using computers, emotional reactions to computers and their actual computer use. In this research, the authors discovered that individuals with high self-efficacy used more computers, enjoyed using them, and experienced less computer-related anxiety.

Some researchers have developed their own measure of computer self-efficacy because they have found previous scales inadequate (Gist et al 1989; Burkhardt & Brass, 1990; Compeau & Higgins, 1995; Hill et al 1987; Miura, 1987; Vasil et al 1987; Wallace, 1999 Webster & Martocchio, 1992). Also in recent studies, (Khorrami-Arani, 2001; Sam, Oyman & Nordin,

2005; Barbeite & Weiss 2004; Simsek, 2011). Other measurement scale include: computer user self- efficacy scale (CUSE) was developed by Eachus and Cassidy (2002) the 30 item scale of the CUSE investigates the relationship between computer efficacy and computer experience, use of software packages (i.e., familiarity), computer training, computer ownership, gender. The rationale for the development of the CUSE relates “to the impact computers are having on many aspects of life and in particular to the increasing reliance in higher education on computer technology to support learning”. The CUSE has been used by numerous researchers like Christian (2000), Langana (2008), Magliaro and Ezeife (2007), Mutchler, Anderson, Taylor, Hamilton, and Mangle (2006).

Durndell, Haag and Laithwaite (2000) adopted a computer self-efficacy instrument that had been modified by Torkzadeh and Koufteros (1994) and made further changes to it in their study. The researchers removed all three statements that were related to mainframe as they reasoned that technology through the emphasis on standalone machines has rendered these skills obsolete for most persons. The authors later added back the two statements that were originally used by Murphy, Coover and Owen (1989) (a) using the computer to analyse number data, and (b) learning advanced skills within specific program (software). This instrument was translated into the Romanian language and was administered to 200 (male = 85, female = 115) students at a university in Romania at the end of the participants first academic year. A year later, the English version of Durndell, Haag and Laithwaite scale was administered to students in a university in Scotland under the same conditions and time of the academic year. A total of 148 students (male = 43, female = 105) participated in the study. In Scotland, the reported Cronbach’s alpha coefficient was .96 and in Romania was 0.95. These alpha coefficients indicated that the instrument used was reliable. Lee and Bobko (1994) found that asking the respondents to rate

their self-efficacy strengths and weaknesses were the most common measures of self-efficacy. Karsten and Roth (1998) recommended that researchers select the computer self-efficacy instrument whose items most closely reflect the skills they wish to measure and that the skills be clearly identified. It is concerned not with the skills one has but with judgments of what one can do with whatever skills one possesses”.

Numerous studies dealing with gender and computer self- efficacy, results of these studies, however, have been inconsistent and research findings are inconclusive with regards to the effect of gender on this phenomenon. Durndell, Haag and Laithwaite (2000) found that in general, male participants had higher computer self-efficacy than females, and that this was more so with advanced as opposed to beginning skills. Chou (2001) proposed the concept of gender as a variable that moderates the effects of training methods and computer attitudes. As a result, he hypothesized that male respondents will generally score higher on computer learning performance measures and score lower on computer anxiety measures. Eachus and Cassidy (2002) revealed similar results in their study on computer self-efficacy. Their study also showed that male participants had significantly higher computer self-efficacy as compared to their female counterparts. Czaja et al (2006) also mentioned that women have higher computer anxiety, lower computer self-efficacy, and lower general computer attitudes.

METHODOLOGY

The study adopted the descriptive survey design. The population of the study is made up of 18,332 registered under -graduate library users of which.

S/N	Name of Institution	Number of Users
1.	Donald Ekong Library, University of Port Harcourt, Choba.	10,107
2.	John Harris Library, University of Benin, Benin.	8,225
	Total	18,332

Source: Records of the circulation units of the university libraries

The sample size for the study is 920 respondents constituting 5% of the population this proportion was used as a result of the size of the population. The study employed the proportionate stratified random sampling technique. The research instrument employed for the data collection is the questionnaire. The data obtained through the questionnaire were analyzed using percentage and mean (\bar{X})

ANALYSIS AND INTERPRETATION

Research Question 1: What are the available access points for the use of OPAC by the library users?

The result of the analysis is presented in Table 1.

Table 1: Access Points for OPAC

Access Point	Frequency	Percentage
By title	645	95.1
By subject	543	80.1
By author	652	96.2

By ISBN/ISSN	82	12.1
Publisher	21	3.1
By year of publication	239	35.2
By class number	11	1.6
By accession/ barcode number	21	3.1
By volume	112	16.5
By series	44	6.5

Table 1 showed that Author 652 (96%), Title 645 (95.1%) and Subject 543 (80.1%) are the major access points through which information are accessed using OPAC. This result is in line with Villen-Rueda et al (2007) in their study on the use of OPACs in the library of University of Granada where they pointed out that the searches made by author name and title of the searched material were preferred. According to Ariyapala and Edzan (2002), title searches were used most frequently. Similarly, Malliari and Kyriaki-Manessi (2007) investigate the type of searches conducted by users of OPAC in the University of Macedonia and their report shows that 41% of the users prefer to use the title of information materials for their first search in OPAC; 27% prefer to search the OPAC using author's name; 23% prefer subject search type. Omolaju (2010) reported that using the authors name and title of the information materials are two major access points used by majority of student in searching for information via the OPAC system. Also, Priyanwada and Wanigasoriya (2013) found that 96.70% of student searched OPAC using author, 92.6% used title, 30.22% used subject.

Research Question 2: What are the various search methods/technique used by users to locate needed materials through the OPAC?

The result of the analysis is presented in Table 2.

Table 2: Search Method/Techniques Use to Locate material through OPAC

Search Methods/Techniques	Frequency	Percentage
Boolean search (“and” or” not”)	569	83.9
Truncation (abbreviation)	177	26.1
Keyword search	644	94.9
Phrase searching	463	68.3
Basic search	632	93.2
Keyword-within-record search	271	39.9
Exact-beginning search	26	3.8
Advance/expert/complex search	33	4.8
Simple search	639	94.2
Word adjacent search	11	1.6
Proximity search	26	3.8

Table 2 showed that keyword search (94.9%), Simple search (94.2%), basic search (93.2%) Boolean search method (83.9%) and phrase searching (63.8%) ranked high in the search methods applied by the respondents in searching through OPACs. This result is supported by several previous studies such as Lau and Goh (2006), in their study conducted at Nanyang Technological University, Singapore, discovered that a majority of the queries were simple and short using least Boolean operators. Dinet, Favart and Passerault (2004) corroborated by

reiterating the fact that Boolean operators must be used to combine keywords when searching electronic databases because using these operators might lead to a more focused, quick and easy search and retrieval of the needed bibliographic records. Kumar and Vohra (2011) also examined the Online Public Access Catalogue usage by the students and faculty of Panjab University Library, Chandigarh and posited that OPAC has revolutionised access to bibliographic information through search capabilities such as keyword searching, Boolean searching.

On the contrary, Sankari et al (2013) reveals that only two percent of the users that combine term using Boolean operations. Also, Abdullah (2000) in a study carried out on the search behaviour of international graduate students of Florida State University, reported that users preferred the keyword approach for unknown item searches and the author name approach for known item search. He observed that users underutilized the advance features beyond the Boolean operators and tended to learn the system usage through personal exploration. However, Sridhar (2004) studied user behaviour on OPAC at the ISRO Satellite Centre Library in Bangalore, India and compared it with the findings of a study on card catalogue usage, of the same library, conducted 17 years ago. The study revealed that searches by title had substantially increased from 8 % on the card catalogue to 38.3 % on the OPAC. Also subject searches dropped substantially from 54.2 % in the case of the card catalogue to almost half at 30.7 % on the OPAC.

Research Question 3: What is the level of the user’s computer self-efficacy?

Table 3: Level of Users’ Computer Self-Efficacy

S/N	ITEM	n	SA	A	D	SD	N	Mean
1	I can deal with most difficulties I encounter	670	21	201	233	160	55	3.0

	when using computers							
2	I find working with computers very easy	673	59	259	211	54	90	3.2
3	I am unsure of my abilities to use the computers	654	34	189	178	82	71	2.6
4	I seem to have difficulties with most of the computer packages I have tried to use	662	97	193	165	51	146	3.0
5	Computers frighten me	675	-	21	345	212	97	2.4
6	I enjoy working with computers	669	92	294	109	86	88	3.3
7	I find computers get in the way of learning	659	103	302	98	54	102	3.3
8	DOS-based computer packages don't cause any problems for me	649	4	56	288	144	157	2.3
9	Computers make me much more productive	678	177	398	54	15	34	3.9
10	I often have difficulties when trying to learn how to use a computer Package	666	111	282	125	43	105	3.3
11	Most of the computer packages I have experience with, have easy to use	653	132	301	69	41	110	3.4
12	I am very confident in my abilities to make use of computers	657	29	99	289	178	62	2.3
13	I find it difficult to use computers to do what I want them to do	661	108	239	121	72	121	3.2
14	At times, I find working with computers very confusing	667	56	249	105	98	159	2.9
15	I would rather that we did not have to learn how to use computers	629	2	23	241	188	175	2.1

16	I usually find it easy to learn how to use a new software package	654	10	59	261	209	205	2.5
17	I seem to waste a lot of time struggling with computers	659	71	187	179	98	123	2.9
18	Computers usually make learning more interesting	668	88	192	158	111	119	3.0
19	I always seem to have problems when trying to use computers	649	74	169	148	121	137	2.8
20	Some computer packages definitely make learning easier	674	148	306	86	34	100	3.5
21	Computer jargon baffles me	644	52	129	198	101	161	2.6
22	Computers are far too complicated for me	668	21	87	231	187	142	2.4
23	Using computers is something I rarely enjoy	671	12	111	219	157	172	2.4
24	Computers are good aids to learning	673	177	328	89	23	56	3.8
25	Sometimes, when using a computer, things happen and I don't know why	661	87	209	151	99	115	3.0
26	As far as computers go, I don't consider myself to be very competent	642	127	261	99	47	107	3.3
27	Computers help me save a lot of time	672	165	341	64	12	90	3.7
28	I find working with the computer very frustrating	667	19	59	289	210	90	2.5
29	I consider myself to be a skilled computer user	674	65	325	143	49	92	3.4
30	When using computers, I worry that I might	651	29	71	325	123	103	2.6

	press the wrong button and damage it							
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Table 3 showed that majority of respondents affirmed that computers make me much more productive (3.9), computers are good aids to learning (3.8), computers help me save a lot of time (3.7), some computer packages definitely make learning easier (3.5), I consider myself to be a skilled computer user and most of the computer packages I have experience with, have easy to use (3.4), I often have difficulties when trying to learn how to use a computer Package and As far as computers go, I don't consider myself to be very competent (3.3), I find working with computers very easy and I find it difficult to use computers to do what I want them to do (3.2), I can deal with most difficulties I encounter when using computers and I find it difficult to use computers to do what I want them to do (3.2), Sometimes, when using a computer, things happen and I don't know why, I seem to have difficulties with most of the computer packages I have tried to use, Computers usually make learning more interesting and I can deal with most difficulties I encounter when using computers (3.0).

Generally, the respondents seem to exhibit a positive computer self-efficacy and as such may be more akin to using OPAC. This is true according to a study by Czaja et al (2006) computer self-efficacy was an important predictor of general use of technology. People with lower self-efficacy are less likely to use technology in general. High self-efficacy also allows people to select challenging settings, explore their environment or create new ones (Schwarzer & Schmitz, 2005). Without self- efficacy, individuals give up trying accomplish their goals, making self- limiting decisions that foreclose opportunities even though individual have the necessary skills to follow a path of action (Bandura in Lucas & Cooper,2005).

Conclusion

The decisions to use OPAC are subject to a variety of factors, from the findings, it is obvious that computer self-efficacy coupled with gender and students' level of study, accounts considerably for the tendency for university library users to use OPAC in south-south Nigeria. The need to do more in improving the computer self-efficacy skills of students cannot be overemphasized as this will enable them effectively utilize the OPAC and tap from the enormous benefits that comes with it. Even though the respondents show a positive attitude towards OPAC the level of usage of OPAC is relatively low, this position is an indication of poor knowledge of manipulating OPAC systems. More is required in teaching students besides computer appreciation, various search methods and techniques as this will enhance their efficacy in the use of OPAC systems. Problems such as poor power supply, lack of computer systems etc. that inhibits the use of OPAC in university libraries should be put to check.

Recommendations

Based on the findings of the study the following recommendations were made by the researcher;

1. Efforts should be geared towards inculcating on university students a practical training of the use of computer.
2. Universities should be equipped with the enabling infrastructure such as adequate power supply, effective Internet connectivity etc. that will encourage the use of OPAC.
3. University libraries should formulate policies that would encourage mandatory use of OPACs.

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