International Journal of Library and Information Technology (IJLIT), Vol.1 No.1, May 2021. Pg.1 - 10

COMPUTER SELF-EFFICACY AS A FACTOR INFLUENCING THE USE OF ELECTRONIC INFORMATION RESOURCES BY UNDERGRADUATES OF FEDERAL UNIVERSITY LIBRARARY DUTSIMMA KATSINA NIGERIA

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Abstract
The study evaluated the computer self-efficacy as determinant of use of electronic information resources by undergraduates in Federal University Library, Dutsimma Katsina State. The study adopted a survey design with a study population of 823 undergraduate students who registered with the university libraries between 2017-2019 academic session (Student's registration record provided in the reader's services section of the university library), from which a sample of 165 respondents were selected using Wimmer and Dominick's (1987) formula. Data was analyzed using the SPSS software, frequency distribution and percentages. The findings revealed that most of the undergraduate students in Federal University Library, Dutsimma Katsina State, considered their level of computer self-efficacy to be high.

Keywords: Electronic information resources, computer self-efficacy, undergraduate, use electronic information resources

Introduction

Emergence of electronic information resources (EIRs) has greatly transformed information handling and management in Nigerian university communities (Adeleke & Emeahara, 2016). EIRs (e-resources) are information documents stored in electronic format, in computer or computer related facilities such as CD-ROMs, flash drives, digital libraries or the Internet. EIRs are materials in digital format that are accessible electronically. EIRs are also defined as information materials which require computer access that a library provides for their students. EIRs provide easy access to vast amount of information remotely which is becoming more popular globally (Tinio, 2013). EIRs offer potential advantages and benefits over the print in an electronic information environment. EIRs connect millions of undergraduate students globally with up-to-date literature. Electronic resources have been embraced by the academic community. It is used for general communication, information retrieval and instructional delivery to support teaching, learning and research activities in tertiary institutions.

Electronic information resources are information documents that can only be accessed electronically using information communication technologies (ICT) facilities (Obuh, 2011). Examples of EIRs that are frequently accessed by students include: Internet, CD-ROM databases, online databases, online public access catalogue (OPAC), electronic journals, electronic books and digitized documents. These resources are gradually replacing the printed information resources because of their ability to deliver to users with current and up-to-date information. Saye (2011) stated that EIRs are information resources that are generated through the electronic medium which have been made accessible to a large group of viewers, whether inside or outside

the place, through electronic transmission or the Internet. Swain and Panda (2013) stated that EIRs are information materials that are accessed through computers, or other types of electronic devices, and installed locally or remotely over the Internet.

Electronic information resources are needed for undergraduate students especially because they make information available, easier and provide faster access to information than information accessible via printed media (Ukachi, 2011). They serve as motivators for learners, as they give them the opportunity to deliver, obtain, transfer and circulate information resources on any topic of interest. EIRs help to develop access, increase usability and efficiency, and create new ways for students to use the available information in the university library. EIRs give users reliable information, and right information for the right user. In addition, the use of EIRs helps students to be well-informed and up-to-date in their respective thematic areas, unlike print information resources that are not updated regularly (Fabunmi, Paris & Fabunmi, 2016).

EIRs have many advantages over printed materials because they can be accessed anytime, anywhere and they do not occupy much space like printed materials. As Varghese (2008) asserted, the availability of information in electronic media has created opportunities for global access to information, enhanced the speed of service, increased the number of users served, increased the quality of information provided, and offered new opportunities for undergraduate students to find relevant information. Undergraduates' are able to access current international literature as soon as it is published on the Internet from the libraries, student information technology (IT) centers, internet cafes, work places and their homes. It is therefore important that university students be equipped with the research tools necessary to access EIRs. Moreover, Yalman, Basaran and Gonen (2016) averred that knowledge of EIRs and related skills plays an important role in today's educational activities. Therefore, every undergraduate should possess these skills in order to be able to participate effectively and successfully as they make use of EIRs in university libraries.

Use of EIRs in this new global economy implies that as information continues to grow exponentially, universities cannot remain mere avenues for the transmission of prescribed set of information from teacher to student over a fixed period of time but must promote learning as knowledge in more dynamic ways. The world is currently living in an information society where there is exponential growth in information accessible through Information and Communication Technology (ICT) especially the Internet which helps undergraduate students to use EIRs effectively. As a result, the use of electronic EIRs by undergraduate students in universities has become indispensable in this digital age where globalization of education is made possible through ICT. This development has given rise to global, current and up-to-date information with the advent of these technologies which aid the transmission of information through EIRs. Tofi (2019) averred that the use of EIRs and technological change have created a new global economy that is powered by technology, fueled by information and driven by knowledge.

Uses of EIRs afford researchers and undergraduate students the opportunity to have access to global information resources, especially the Internet for their scholarly work. Undergraduate students in university libraries make use of EIRs for many purposes mostly for academic purposes that is, retrieving current literature for studies and preparing for examinations, doing class assignments, carrying out research projects, and communicating and collaborating with peers and teachers via the Internet on e-mail or by following blog discussions (Adeniran, 2013). Undergraduate students use e-books and e-journal articles to acquire knowledge and carry out research work (Ajayi, Shorunke & Aboyade, 2014). Course materials are provided on CD-ROM for students' use which helps them to use EIR at their convenient time. With the emergence of ICT, EIRs have become widely used and accepted among scholars and have increased tremendously in volume around the globe (Oyedapo & Ojo, 2013). All these resources have really improved the quality of education as this is evident in the literature. However, literature has revealed low usage of EIRs by undergraduates in Nigeria (Omoike, 2013).

The uses of EIRs have become necessary in the academic environment (Ku, 2008). They serve as motivating factors to users as they provide them with opportunities to share, acquire, transfer and disseminate information on any subject of concern. Electronic information resources provision makes it possible for users

to access new tools and applications for information seeking and retrieval. E-resources have become invaluable research tools that complement the print collection in the traditional library setting. These resources serve as veritable sources of information which students could tap into to aid their class assignments, write research and term papers, and search for information on their subject areas among other things. The manual system of searching for information resources does not permit multiple access and usage of the same information resources by different users unlike online services. It is worthy of note that, EIRs are of great importance to the academic and research needs of undergraduate students in university libraries since they are available in various formats (Fabunmi, Paris & Fabunmi, 2016).

In the same vein, due to the several advantages of EIRs such as their timeliness, search facilities, remote access and up-datedness, they have become more indispensable after the arrival of the Internet in the academic environment. The provision of EIRs in tertiary institutions of learning is a new way of gaining quick access to a great number of research information globally (Aina, Okunnu, & Dapo-Asaju, 2014). As a result of the potential benefits offered, they have been embraced by university libraries. Undergraduates would benefit from the EIRs if they are well harnessed as they will provide excellent opportunities to access scholarly information which are beyond the reach of libraries due to geographical barriers and limited finances.

Ekenna and Ukapho (2016) noted that EIRs were very well accepted in other countries of the world, as against the situation in Nigeria. It is inevitable to conclude that perhaps the poor use of EIRs could be due to lack of or inadequate information literacy skills or poor computer self-efficacy. Studies have also shown that factors such as information literacy skills or computer self-efficacy are the determining factors that may influence users' ability to use EIRs (Prangya & Rabindra, 2017). Therefore, underutilization of electronic information resources could be attributed to the lack of information literacy skills which limits the ability to effectively locate and make ethical use of needed information or loe level of computer self-efficacy which could hinder the zeal for making use of electronic information resources in the university library.

In the same vein, various studies have been carried out on the use of EIRs by different categories of users (Ekhanuere, Olayinka, Taiwo, Alonge & Obono 2015). Surveyed users include students, lecturers, researchers, expects of various profession and scientists. While some researchers claim that there are more studies that have reported high usage of electronic information resources, others have argued that the opposite is the case. Romanove and Aarnio (2016) have argued that there is low usage of EIRs on studies that have been undertaken mainly in Northern Nigerian. They have explained that factors that have led to the low usage of EIRs include lack of adequate ICT infrastructure, unaffordable online access and poor ICT skills of librarians to adequately serve their clients. Despite these differences between the two groups of researchers, most of them agree that online databases have not been equally patronized by students due to lack of awareness of the available EIRs, lack of time to access them and the use of passwords (Ani, 2015).
The use of EIRs can be measured using indicators provided by the unified theory of acceptance and use of technology (Venkatesh, Morris, Davis, & Davis 2003). This has four key indicators which are: performance expectancy, effort expectancy, social influence, and facilitating conditions which are direct determinants of usage intention. This study will adopt the Performance Expectancy (PE) which refers to the fact that undergraduate students' use of EIRs depends on how they perceive the usefulness of the electronic information resources. If an undergraduate student believes that using of electronic resources in research may have a positive effect on his academic performance, then he/she may likely to use them. The extent of use of electronic resources depends on the perceived usefulness of the electronic information environment. In addition, undergraduate students who believe using the system frequently will help him or her to use EIRs effectively and efficiently and also improve their academic performance will take advantage over those who do not use. PE also refers to the degree to which an undergraduate believes that use of EIRs will help them to enhance their academic performance as well as their research output in the information era.

University library, as an organization, is considered as the custodian of knowledge where undergraduates from diverse disciplines obtain knowledge and assistance for self-improvement. Acquisition of knowledge is necessary for better understanding and contribution in community matters. One of the places where

undergraduates acquire this knowledge is a university which is known as a custodian of knowledge where students from diverse disciplines obtain knowledge and skills for individual development. The acquisition of knowledge is essential for a better understanding and contribution in society matters and prepares one for participation for the future community (Suwan & Panda, 2013). Thus a university library could be a breeding ground for creativity and independent thinking. This however depends on the quality and quantity of information resources available in the university library. The university library, which is usually referred to as the heart of the university is primarily for the treatment and achievements of the goals set by the university in providing information materials and services that meet the information needs of the whole university community (Mbabu, Bertman & Varun, 2012).

Studies have shown that the introduction of Information Communication Technology (ICT) facilities in the university libraries has tremendously enhanced information generation, access, storage and dissemination (Mohammed & Philip, 2017). Dissemination of timely and up-to-date information is made easier with the advent of these technologies which aid the transmission of information through EIRs (Raji, 2018). The increased awareness of the importance of information in human activities has also necessitated the need for provision of more diversified, easier and upgrading of the services to meet with the growing information needs of the users (Swain & Panda, 2013). Tofi (2019) opined that rapid advancement of ICT has brought revolutionary changes in the university libraries giving rise to a number of options to the user community to handle varieties of information sources conveniently and effortlessly. As a result electronic information resources have become the lively substance to the modern university libraries in satisfying needs of students. However, EIRs is very important in university libraries, where most libraries that provide access to this service gain competitive advantage.

Since EIRs depend on technology, there is need for computer self-efficacy. Computer self-efficacy is a key factor to consider when using computer-assisted electronic resources. The perceived self-efficacy of the computer is likely to increase undergraduate use EIRs and reduce the person's anxiety about the computer. Computer self-efficacy is related to judgments in terms of individual's capacity to perform a specific task with the computer successfully. This is the belief in individual's abilities in using the computer to organize and take the necessary steps to administer it in future situations (Bandura, 1999). It is not just about the skills you have, it also involves the judgments and the trust that individuals have regarding the skills one possesses. The computer self-efficacy is an essential determinant of performance that works partially regardless of skill level. In the use of electronic information resources, it can, therefore, be expected that students with high computer self-efficacy would be expected to take advantage of using electronic information resources when compared to students with low computer self-efficacy, as the later may lack the confidence or shy away from using computer-based resources. It must be highlighted that self-efficacy is not a measure of skills rather, it reflects what people believe, he/she can do with the skills they have. Therefore, computer self-efficacy focuses on what one thinks he can do now or in the future using the computer.

When it comes to the personal use of computer, the personal choice, the effort and the continued use of computer technology are influenced by the degree of effectiveness of the computer. Computer self-efficacy is an important factor in the use of electronic resources in the technological world (Askar & Umay, 2011). Computer self-efficacy refers to the confidence of people towards computer technologies. The extent to which a person can trust his/her use of computer can determine the extent to which electronic resources are used when accessing resources through a computer. In terms of self-efficacy, Bandura (1995) stated that it "reflects the belief that it can organize and implement the measures needed to deal with potential situations". Snyder and Lopez (2010) argued that self-efficacy is, under certain conditions, the capability of using one's own abilities. Self-efficacy is considered as a special version of a particular self-esteem task (Lunenburg, 2011). For Bijl and Shortridge-Baggett (2002), the theory of self-efficacy is based on the fact that people are more likely to perform tasks for which they have a high degree of self-efficacy rather than less self-efficacy, to those who do not. They further said people behaved in the same way as their original beliefs, and self-efficacy was therefore a self-fulfilling expectation. In addition, self-efficacy has an impact on people's learning, motivation and performance, as they often attempted to take on and fulfill the task that they considered likely to be successful. A high degree of self-efficacy determines whether a person chooses a

difficult task or cannot resign from his job. Luszczynska and Schwarzer (2015) stated that determining a person's beliefs about their ability to influence attitudes have a strong impact on a person's strength and the challenges they face. Anafo and Filson (2014) argued that self-efficacy is the belief that an individual has the confidence and the ability to take the necessary action to cope with a specific situation in which he or she was trained.

Statement of the Problem

The use of electronic information resources (EIRs) in learning and research by students has become indispensable in this digital age where globalization of education is made possible through Information and Communication Technology (ICT). EIRs are information documents that can only be accessed electronically using ICT facilities. Electronic information resources are of great importance to the academic and research needs of undergraduate students in university libraries. Use of Electronic information resources (EIRs) has become inevitable for undergraduates in the digital age, given the volume of academic materials that are available in EIRs. Effective use of these EIRs depends on the level of computer self-efficacy. Even though university libraries conduct workshops and seminars to sensitize undergraduate students on the use of electronic information resources that are available in federal university library dutsimma katsina state, the literature has established that their use by undergraduate students have been very low.

The study conducted by Ekenna and Ukpebor (2016) showed that EIRs were very well accepted in other countries of the world as against the situation in Nigeria. One is curious as to why the situation should be different in Nigeria. A possible reason that readily comes to mind for the low use of EIRs in the study area arising from the literature includes the level of student's computer self-efficacy, since successful use of EIRs demands some level of computer self-efficacy. Another possible reason for low use of EIRs by undergraduate students could be their poor self-efficacy which the literature has identified as a necessary precursor to successful use of EIRs. In the light of the above, the present study investigated the influence of computer self-efficacy on the electronic information resources use in university library in Dutsimma Katsina State, Nigeria.

Objective of the Study

The main objective of this study is to investigate the influence of computer self-efficacy on electronic information resources use by undergraduates in federal university library in Dutsimma Katsina State, Nigeria. The specific objective is to:

1. ascertain the level of computer self-efficacy of undergraduates' in federal university library in Dutsimma Katsina State, Nigeria.

Research Questions

The following research question guided the study:

1. What is the level of computer self-efficacy of undergraduates' in federal university library in Dutsimma Katsina State, Nigeria?

Methodology

Survey method was adopted for this study primarily because it was a suitable and efficient way of studying large populations. It allows only a sample population to be used to represent the entire population. The target population for this study were the undergraduates of Bayero University Kano. The population consisted of mainly 300 and 400 level students, total population was 823. This is simply because they tend to understand and use the library more because of their projects for the final year. The questionnaire was used as an instrument for data collection. Questionnaire was the only instrument used for the collection of data for this study because it is capable of reaching a large number of respondents and provides privacy and confidentiality. The questionnaire was prepared on the basis of the objective of the proposed study and was distributed randomly among the target population under the study. Total 165 questionnaires were distributed and 155 were returned back after filling by the student. The descriptive statistical technique made up of tables and percentages was used in analyzing the data collected.

Research Question 1: What is the level of computer self-efficacy of undergraduate students' in federal university library in Dutsimma Katsina State, Nigeria?

Under this section, data were gathered using the questionnaire to enable the researcher provide answers to research question four. The data were analyzed and presented under this section.

Table 1: Level of computer self-efficacy of undergraduate students
Field Survey, 2019

Statement	Strongly Agree (%)	Agree (%)	Disagree (%)	Strongly Disagree (%)	Mean	SD	Percentage contributions
Mastering Experience (Mean=3.22)							
If I cannot use EIRs the first time, I keep attempting until the point when I can	28(4.4)	68(10.7)	239(37.7)	299(47.2)	3.28	0.83	**29.6%**
When trying to learn something new in EIRs , I soon give up if I am not initially successful	28(4.5)	86(13.7)	240(38.2)	275(43.7)	3.21	0.84	
I lose courage whenever I fail in using EIRs	27(4.3)	99(15.6)	247(39.0)	260(41.1)	3.17	0.84	
Verbal Persuasion (Mean=2.97)							
I can achieve a better result, when I am told I am capable and would have no difficulty in using EIRs.	46(7.4)	81(13.1)	267(43.1)	226(36.4)	3.09	0.89	
I can use EIRs effectively, even when I have been told that I am not capable of achieving it and have never attempted it before or watched anyone do it	45(7.2)	122(19.6)	225(36.1)	232(37.2)	3.03	0.93	**27.3%**
I can use EIRs better whenever I am acknowledged for my effort	86(14.0)	136(22.1)	199(32.3)	195(31.7)	2.82	1.03	
Somatic and Emotional State (Mean=2.58)							
I give up when using EIRs even before I encounter problem	124(19.6)	137(21.6)	194(30.6)	178(28.1)	2.67	1.08	**23.7%**
I am good at solving problems when I feel physically and emotionally normal	130(20.5)	183(28.9)	156(24.6)	165(26.0)	2.56	1.09	
I am afraid of using the EIRs because my initial attempt failed	119(18.7)	184(29.0)	216(34.0)	116(18.3)	2.52	1.00	
Vicarious Experience (Mean=2.11)							
I am better at using EIRs when I meet my colleagues/classmate	169(26.8)	250(39.6)	144(22.8)	68(10.8)	2.18	0.95	
I find it difficult to attempt a task when I have watched someone attempted such task unsuccessfully	173(27.6)	237(37.8)	153(24.4)	64(10.2)	2.17	0.95	**19.4%**

which I have never attempted doing it before myself.							
I can solve a problem when I watch my colleagues/someone using EIRs	192(31.3)	285(46.5)	103(16.8)	33(5.4)	1.96	0.83	
Grand Mean = 2.90							

Decision rule states that: 1.0-1.49 = Very Low Level; 1.50-2.49 = Low Level (D); 2.50-3.49 = High Level; 3.50-4.0 = Very High Level. The cut-off mean is 2.5. This means that any score below 2.5 is considered "Very Low Self Efficacy", or "Low Self Efficacy" while those above 2.5 are considered "Very High Self Efficacy" or "High Self Efficacy".

The finding in Table 1 reveals that the level of computer self-efficacy of undergraduate students' in federal university library in Dutsimma Katsina State, Nigeria was high (mean=2.90). This suggests that undergraduate students possess the features of computer self-efficacy at a high level to enable them confidently use electronic information resources. Among all the measures of computer self-efficacy, mastering experience was considered highest with a mean score of 3.28. Verbal persuasion (mean=2.97), somatic and emotional state (mean=2.58) were also on a high level of computer self-efficacy. However, undergraduate students' vicarious experience (mean=2.11) was the lowest among the four measures of computer self-efficacy. The percentage contribution of the four constructs to is captured in the last column of the table. Mastering experience (29.6%) contributed highest to undergraduate students' computer self-efficacy while vicarious experience (19.4%) offered the least contribution. This might imply that undergraduates in students' in federal university library in Dutsimma Katsina State, Nigeria are highly confident in using EIRs for several purposes.

Specifically, under mastering experience, undergraduate students are very resilient in using EIRs to a high level (mean= 3.28) while they lose courage to a high level whenever they fail in using EIRs (mean=3.17), although this was considered to be the lowest under mastering experience construct. This may suggest that the students have developed strong will to use EIRs. Their desire to meet their academic targets in school might have contributed to this finding.

Under verbal persuasion, undergraduates highly claimed that they achieve better results, when told they are capable and would have no difficulty in using EIRs (mean=3.09) while they can also use EIRs better whenever they are acknowledged for their efforts (mean=2.82). This result implies that external motivations and encouragements have been pivotal to development of undergraduate students' verbal persuasion skill in federal university library in Dutsimma Katsina State, Nigeria.

Also, under somatic and emotional state, the undergraduates perceived highly that they give up when using EIRs even before encountering problems (mean=2.67) while they also expressed fear of using the EIRs when they fail in their initial attempts on a high level (mean=2.52). This may imply that fear of failing at first attempts in using EIRs is might be a major impediment that might limit undergraduate students' somatic and emotional states in federal university library in Dutsimma Katsina State, Nigeria.

In addition, under vicarious experience, undergraduates claimed on a low level, to be better at using EIRs when they meet colleagues/classmate (mean=2.18) while they also expressed low response problems solving after watching colleagues/someone using EIRs (mean=1.96). This may imply that undergraduates can use other medium such as self-training or mentoring, aside colleagues to develop their vicarious experience of EIRs.

Discussion of Finding

Research question was formulated to ascertain the level of computer self-efficacy of undergraduate students' in federal university library in Dutsimma Katsina State, Nigeria. The question arose from the assumption that computer self-efficacy is needed to improve undergraduate students' use of electronic information resources in federal university libraries. For example, university students' confidence in their ability to use the computer can also determine their level of using the computer and EIRs. It is therefore pertinent that

undergraduate students should express high level of computer self-efficacy. Table 1 indicates high level of computer self-efficacy of undergraduate students' in federal university library in Dutsimma Katsina State, Nigeria. The finding supports that of Bandura (1997) who pointed out that people with high self-efficacy are engaged in more demanding tasks and are creative. Lending credence to this view, Khorrami-Arani (2001) cited in Huseyin and Suel (2014) saw higher levels of computer self-efficacy as factors that enhance performance in computer courses and greater achievement of computer competencies. They noted that individuals whose computer self-efficacy levels are higher are more desirous about and interested in using a computer and they have higher expectations. This line of argument is corroborated by Waldman (2002) who asserted that students with high computer self-efficacy are more likely than others to explore new technologies, software or databases. Pintrich and Garcia (1991) have shown that students with greater self-efficacy use and continue to engage in cognitive and cognitive strategies. The finding also agrees with that of Ramayah and Bushra (2004) who affirmed that self-efficacy have direct significant impact on e-library usage and that of Schwarzer and Schmitz (2005) who submitted that previous computer experience may lead students to believe that the use and access to library resources provided by the computer are easy.

However, the finding disagreed with that of Nwobu, et al. (2018) who concluded low level of computer self-efficacy among students of Federal College of Education Technical in the aspects of feeling confident using OPAC. The finding also disagreed with that of Dange (2010) who studied postgraduates' computer literacy and their e-resources use in Ku Vampu University, India and reported that the students entering the university at the level had a mediocre knowledge of computer. Similarly, Abubakar and Adetimirin (2015) maintained that even though the students had little knowledge of the computer at their respective high schools, there are still more to learn in terms of information retrieval, storage and editing of their research works. The disparity in the findings could be that this particular study only investigated the level of undergraduate students' computer self-efficacy in federal university library in Dutsimma Katsina State.

Conclusion

Electronic information resources have indeed become very important to undergraduate students in Nigerian federal university libraries especially in accessing up-to-date information as they give access to quality information irrespective of place, time and space. However, students cannot effectively use electronic information resources without adequate computer self-efficacy. The result shows high level of computer self-efficacy of undergraduate students' in federal university library in Dutsimma Katsina State, Nigeria. The Level of computer self-efficacy in federal university libraries in North-West, Nigeria was high among the undergraduates'.

Recommendation

Based on the finding of this study, the following recommendation is made:

The management of federal university libraries should ensure that the teaching of information literacy skills and computer self-efficacy to undergraduates in federal universities is promoted. This is to ensure that the high level of usage of EIRs by undergraduate students is sustained.

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