

# Identifying the Relationship between Students Computer Hardware Skills in the Use of Electronic Information Resources in University Libraries in South-West, Nigeria

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## ABSTRACT

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This study determined the relationship between students' computer hardware skills in the use of electronic information resources in University libraries in South-West, Nigeria. This study adopted a correlation research design involving simple and multiple linear methods. The population of this study is 85,526. The sample for the study was 398. Proportionate sampling techniques were used to draw the sample. The findings revealed that there is a moderate positive and significant relationship between the students' computer hardware skills and their use of EIR in university libraries. Also, there is a moderate positive and significant relationship between the students' computer software skills and their use of EIR in university libraries in South-West, Nigeria; and there is a high and significant relationship among students' computer hardware skills, computer software skill and their use of electronic information resources in the university library in South-West, Nigeria. Based on the above findings, the study recommended among others that undergraduate students should enhance their computer hardware skills since it is related to the use of electronic information resources in the universities. Research implications were also offered.

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## 1. Introduction

Computer knowledge is vital to enable information users to know the available electronic information resources (EIR) in respect to access, use and the benefits they will derive from them. Users are better served when they possess a basic understanding of what a computer is and how it operates. All computers have two things in common; hardware and software. Improving the computer skills of students would facilitate the effective use of EIR in the university library. Acquiring computer skills would increase the level of EIR usage in the library which will justify the huge financial investment on EIR by the university. Improving computer skills through the use of Information

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and Communication Technology (ICT) can take different forms which would differ from one university library to another. Therefore, computer skills are prerequisite to using online information resources. According to Indeed (2019) computer skills fit into two categories: hardware and software: Hardware skills allow you to physically operate a computer. Hardware skills can be as simple as knowing how to turn devices on and off. Only a skilled person in hardware can purchase and install computers and related equipment without fault (Usman & Gopakumar, 2018). They might also involve more complex tasks like connecting machines to networks, changing parts or fixing broken devices. While Software skills help you to efficiently use computer programs and applications. The kind of computer skills required by professionals differs according to job functions. Rahman (2014) affirmed that computer hardware and software require each other and neither can be realistically used without the other. System software is designed to operate the computer hardware, provide basic functionality, and provide a platform for running application software (Islam, 2009). It is glaring that users of university libraries require both hardware and software skills to be able to maximally utilize electronic information resources available in their university libraries. Sharma (2019) outlined some importance of having computer skills in today's world, they include; it helps in learning and education, easy access to information, document processing, business opportunities and career development, innovation and competitiveness to mention but a few. Meanwhile, computer networking and hardware courses are becoming increasingly popular in universities, polytechnic institutions, postsecondary colleges, and private training institutions worldwide because of the high demand for people with computer networking and hardware skills. The learning-by-doing approach is an essential component in courses on computer networking and hardware fundamentals (Abe et al., 2004; Burch, 2002; Comer, 2002; Sarkar, 2005). Meanwhile, users of EIR need to possess knowledge of computer hardware skills in order to harness the opportunity of e-resources in the university libraries.

The type of electronic information resources that could be acquired in university libraries depends on the needs of the patrons, cost and complexity of the materials. Consequently, Kenchakkanavar (2014) outlines the types of EIR found in libraries, and they include; E-books, e-journal, e-Newspaper, e-zines, indexing and abstracting databases, full text database, reference database, statistical database, image collection, multimedia products, e-thesis, e-clipping, e-Patents and e-standards. According to Asha, Kaur, and Rani (2015), asserts that electronic information resources include; e-books, CD-ROM, e-conference proceedings, e-databases, e-technical reports, e-theses and e-dissertations, and academic databases to mention but a few that require information literacy skills to enable library users to make adequate use of electronic information resources (EIR). IGI Global (2019) describe electronic information resources as electronic products and information materials that deliver a collection of data, be it text referring to full-text databases, e-journals, e-books, e-newspapers, image collections, archives, theses, conference papers, government papers, scripts and monographs in an electronic form. Others include multimedia products and numerical, graphical or time-based, which are commercially available title that has been published with a sole aim of being marketed and for information dissemination. To effectively use these resources, the users need a certain level of literacy.

Manjack, Fari, and Dangani (2019) studied electronic information resources with particular reference to the university libraries in Gombe State, Nigeria. The findings showed that all the types of electronic information resources listed in the study are available with electronic books having the highest

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responses. It also revealed that the institutional repository was the most utilized electronic information resource. The study found out that there is no significant difference in the extent to which undergraduate students utilize EIR. Similarly, Adeniran, and Onuoha (2018) studied the influence of information literacy skills on postgraduate students' use of electronic resources in private university libraries in South-West, Nigeria. Findings revealed that there was a significant positive correlation between information literacy skills and use of electronic resources ( $r = 0.28, p < 0.05$ ). The study concluded that the utilization of electronic resources promoted access to current information among postgraduate students in the selected private universities in South-West, Nigeria. In a related study, Toyo (2017) examined Undergraduates' information literacy skills and the use of electronic resources in Delta State University, Abraka, Nigeria. The study revealed that undergraduate LIS students in Delta State University, Abraka make use of various electronic resources. The study further revealed that the respondents are well versed with information literacy skills which they use to exploit the millions of information available in electronic resources via the internet. It was also discovered that undergraduate students derive various benefits from the use of electronic resources and they include instructional delivery to support teaching and research activities, relatively easy to use, access to a wider range of information, aids access and retrieval of information, improvement in general communication, improved overall academic performance and high dependency value on research work. It is therefore, the objectives of the study is to determine the relationship between students' computer hardware skills in the use of EIR in the university libraries.

### *1.1 Statement of the Problem*

With the current development in Information and Communication Technology (ICT), university libraries in Nigeria are now providing resources in electronic formats. Many of the university libraries have made significant investments in providing services through Electronic Information Resources (EIR) and other computer-based technologies so that undergraduate students can gain access to information that will enhance their scholarly research work. Yet, available literature has indicated low use of Electronic Information Resources (EIR) by undergraduate students in most university libraries in Nigeria. This has diminished the potentials and payback, considering the enormous investment on electronic information resources. This may probably be due to a lack of information technology literacy such as computer hardware skills and computer software skills by the users' that can enable them to access needed electronic information resources. This situation prompts the need for this study, with the view to determining the relationship between students' computer hardware skills in the use of EIR by undergraduate students in university libraries in South-West, Nigeria.

### *1.2 Purpose of the Study*

The specific purposes are to ascertain the:

- (a) Relationship between the students' computer hardware skills and their use of electronic information resources (EIR) in university libraries in South-West, Nigeria

- (b) Relationship between students' computer software skills and their use of EIR in university libraries in South-West, Nigeria

### *1.3 Research Questions*

The following research questions were posed to guide the study:

- (a) What is the coefficient relationship between the students' computer hardware skills and their use of electronic information resources (EIR) in university libraries in South-West, Nigeria?
- (b) What is the coefficient relationship between students' computer software skills and their use of EIR in university libraries in South-West, Nigeria?

### *1.4 Research Hypothesis*

- (a) Ho1: There is no significant relationship among students' computer hardware skills and their use of EIR in university libraries in South-West, Nigeria, Nigeria.
- (b) Ho2: There is no significant relationship among students' computer software skills and their use of EIR in university libraries in South-West, Nigeria, Nigeria.

## 2. Literature Review

The provision of electronic resources in libraries is necessitated by increasing demands made by users for access to electronic resources, continuous migration from print to online resources, and the overall proliferation of electronic content have forced libraries globally to re-examine their traditional operations and workflows. Efficient electronic resources management remains crucial in helping libraries to fulfill their roles of meeting the information needs of patrons. Ismaila (2019) investigated Information literacy skills on the use of electronic resources by undergraduate students of the University of Ilorin and Kwara State University Malete, Kwara State. The study found that majority of the undergraduate students had a high level of computer self-efficacy which influence their use of electronic information resources. In the same vein, the study found that the majority of the undergraduate students found that information literacy skills influence their use of electronic information resources. Furthermore, the study found that the combination of computer self-efficacy and information literacy skills influence the use of electronic information resources by undergraduate students in the University of Ilorin and Kwara State University. Similarly, the study found that the majority of the undergraduate students use electronic information resources to do their assignments and also use electronic information resources to get relevant academic materials through personal searches. On the other hand, the study found that management should provide good facilities (e.g., good computer hardware and software and good communication network) to support usage and also improve internet connectivity to improve the use of electronic resources among undergraduate students. Finally, the study found that both computer self-efficacy and information literacy skills

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have a significant relationship with the use of electronic information resources.

In a study carried out by Azubuikwe (2016) on Information literacy skills and awareness of electronic information resources as influencing factors of their use by postgraduate students in two universities in South-West Nigeria. The findings of this study revealed that there was the high rate of information literacy skills and awareness of electronic information resources, EIR among the postgraduate students of the University of Ibadan and the Lagos State University to achieve their various academic goals. The power outage was ranked the highest problem encountered by the respondents of the two universities under study in the use of Electronic Information Resources, EIR for their various academic pursuits. The study of Odede and Zawedde (2018) examined Information Literacy Skills in using Electronic Information Resources. The research aimed to unravel the relationship between information literacy skills and the use of electronic information resources. The findings revealed that the use of electronic information resources is determined by competency in the various dimensional constructs of information literacy. Findings further indicated that tool literacy, critical literacy, social-structural literacy, emerging technology literacy, and publishing literacy skills are required in using electronic information resources. The level of computer skills among the students has been found to influence the use of online information resources. Katz (2008) reiterated that the use of online information resources by undergraduates can be influenced by the level of computer skills they possess. Similarly, Spicer-Sutton, Lampley, and Good (2014) were on self-assessment and student improvement in an introductory computer course at the Community College Level in Northeast Tennessee. The main purpose of the study was to determine students' computer knowledge upon course entry. The data analysis revealed significant differences in pretest scores between educational experience categories. In each instance, the pretest means for the first-semester freshmen students was lower than second-semester freshmen and sophomores. The study also reported significant differences between the self-rated user categories and pretest scores as well as differences in improvement scores (post-test scores minus pretest scores). However, the improvement scores (post-test scores minus pretest scores) were higher than the other self-rated user categories. Of the three participating campus locations, students at Location 1 earned higher improvement scores than did students at Location 2. The results also indicated that there was a significant difference between the types of course delivery and course improvement scores (post-test scores minus pretest scores). The result showed that neither students nor instructors considered knowledge of computer hardware (input, processing, storage, and output) as a necessary skill. In this context, it means that students and instructors are more likely to acquire skills that will enable access and use electronic resources for learning and research than acquiring hardware skill. More so, a study was carried out by Emwanta and Nwalo (2013) on the influence of computer literacy and subject background on use of electronic resources by undergraduate students in universities in South-western Nigeria. The findings of the study revealed that computer literacy and subject background influenced use of electronic information resources by the students. Furthermore, Renwick (2009) was on knowledge and use of electronic information resources by medical sciences faculty at the University of the West Indies. Findings indicated that response rate was 70%, of whom 97% were computer users. Seventy-three percent used computers daily, and 82% felt that their computer literacy level was average or beyond. Overall.

However, Abubakar and Adetimirin (2015) studied influence of computer literacy on postgraduates'

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use of e-resources in Nigerian University Libraries. The main objective of the study was to investigate the influence of computer literacy on use of electronic resources by postgraduate in university libraries in Nigeria. The findings revealed that the postgraduates' computer literacy level was average (56.3%). They used only few of the e-resources in their libraries and the frequency of usage was low (weighted average  $Y = 2.45$ ) Computer literacy had positive relationship with postgraduates' usage of e-resources that was positive, very strong and significant ( $r = .740$ ;  $df = 2284$ ;  $p < .05$ ). This shows that the more the postgraduates' are exposed to computer literacy skills, the better the use of e-resources for their researches. Computer literacy is necessary to influence use of e-resources by the postgraduates' and therefore, computer literacy programme should be introduced for new entrant postgraduates. Furthermore, Sadiku and Kpakiko (2017) Assessed computer self-efficacy and use of electronic resources by students in Nigerian University Libraries. The main objective of the study was to examine extent to which computer self-efficacy can influence the easy access to information by the utilization of the library e-resources in Nigerian University. The findings revealed that 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  $Beta = .117$ ;  $t = 2.03$ ;  $P < .05$ . This implies that students with higher computer self-efficacy inclined to use the e-resources more often and most likely would be more satisfactory with library use. Similarly, Ademodi and Adepoju (2009) studied computer skill among librarians in academic libraries in Ondo and Ekiti States, Nigeria. The main objective of the study was to ascertain whether academic librarians in Ondo and Ekiti States possess computer skills and competencies in the use of computer. The findings show that nearly half the respondents use Microsoft Word, with smaller numbers using other Microsoft products and other software such as Adobe and Corel products. The finding reveals that one third of the respondents obtained skills through formal training. A slightly larger number learned through workshops, while one fifth learned from friends. Only one third of respondents have received formal computer training.

### 3. Methodology

This study adopted a correlation research design involving simple and multiple linear methods. According to Leed and Ormrod (2010), correlational research is concerned with establishing the relationship between two or more variables in the same population or between the same variable in two populations. The population of this study is (85,526) undergraduate students registered library users 2019/2020 academic sessions (final year students) in the federal and state universities in South-West, Nigeria. The sample for the study was 398. A proportionate sampling technique was used to draw the sample. This method was used because the population of the institutions under study is not equal. Simple cluster sampling was used to select the individual respondents. Taro Yamane's (1967) statistical formula was used to determine the sample size of 398. A total of 398 copies of the questionnaire were distributed and completed copies were retrieved, thus there was 100% response rate. This was achieved because respondents filled the questionnaire and were immediate

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ly returned them with help of 5 research assistants. The researcher used Pearson r and multiple correlation statistics to answer the research questions while t-test of the significance of simple linear correlation and One Way ANOVA F-test associated with multiple correlation statistics were used to test the hypotheses at  $p < 0.05$  level of significance.

#### 4. Reliability of the Instruments

The study adopted the trial-test method for the reliability of the instrument. To ascertain the reliability of the instruments, 30 copies of the instrument were given to undergraduate students (final year) Federal University of Petroleum Resources, Effurun, Delta State which is outside the area of study. The scores obtained were computed statistically using Cronbach alpha to obtain the internal consistency of the instrument. The result of the reliability test showed reliability coefficient (r) of 0.88 and 0.71 for “Identifying Relationship between Students Computer Hardware Skills Scale (IRBSCHS)” and “Electronic Information Resources Use Scale (EIRUS)” respectively which proved high enough and adequate to justify the use of the instrument.

#### 5. Results and Discussions

As shown in **Table 1** above, the populations of this study consist of 85,526 undergraduate students in the federal and state university libraries under study. The breakdown of the number of undergraduate students in the federal and state university libraries in South-West, Nigeria is as follows: Federal University of Technology Akure, (FUTA) Ondo (7,673); Federal University of Agriculture Abeokuta, Ogun, (FUNNAB) Ogun (6,219); Obafemi Awolowo University. Ile-Ife (OAU) Osun (9,394); University of Ibadan, Ibadan (UI) Oyo (10,151); University of Lagos (UNILAG) Lagos (7,648); Federal University, Oye-Ekiti, Ekiti State (FUOYE) Ekiti (4,785); Ondo State University of Science and Technology Okitipupa (OSUST) Ondo (285); Olabisi Onabanjo University Ago Iwoye (OOUAI) Ogun (7,981); Osun State University Oshogbo (UNIOSUN) Osun (8,456); Ladoke Akintola University of Technology Ogbomoshos (LAUTECH) Oyo (6,721); Lagos State University (LASU) Lagos (9,235); and Ekiti State University, Ado-Ekiti, Ekiti State (EKSU) Ekiti (6,978) respectively.

**Table 1.** Population of the Study

S/N	Name of Institutions	State	Ownership	Total Number of Undergraduate Students (Final Year Students) in the South-West, Universities (2019/2020) Session
1	Federal University of Technology Akure, (FUTA), Ondo	Ondo	Federal	7,673
2	Federal University of Agriculture Abeokuta, Ogun, (FUNNAB)	Ogun	Federal	6,219

3	Obafemi Awolowo University. Ile-Ife (OAU)	Osun	Federal	9,394
4	University of Ibadan, Ibadan (UI)	Oyo	Federal	10,151
5	University of Lagos (UNILAG)	Lagos	Federal	7,648
6	Federal University, Oye-Ekiti, Ekiti State (FUOYE)	Ekiti	Federal	4,785
7	Ondo State University of science and Technology Okitipupa (OSUST)	Ondo	State	285
8	Olabisi Onabanjo University Ago Iwoye (OOUAI)	Ogun	State	7,981
9	Osun State University Oshogbo (UNIOSUN)	Osun	State	8,456
10	Ladoke Akintola University of Technology Ogbomosho (LAUTECH)	Oyo	State	6,721
11	Lagos State University (LASU), Lagos	Lagos	State	9,235
12	Ekiti State University, Ado-Ekiti, Ekiti State (EKSU)	Ekiti	State	6,978
Total				85,526

Source: Establishment units of the universities under study. (Final Year Students)

### *5.1 Area of the Study*

The area of study is South-West, Nigeria. South-West, Nigeria is one of the six geopolitical zones of Nigeria, consisting of the following states: Ekiti, Lagos, Ogun, Ondo, Osun and Oyo. (Six States). Thus, this zone is chosen because there are numerous universities, colleges of education, polytechnics and specialized institutions. The study area was comprise the six Federal and Six States Universities final year students in South-West, Nigeria. The universities in the South-West zone have a good number of courses offered at undergraduate level with a large population of students who are engaged in research. Meanwhile, some of the States in this study have more than one state university e.g. Ogun and Ondo States. In this case, the one established earlier was chosen out of the two in any state with more than one state university.

#### ***RQ 1: What are the library portal services available in the libraries?***

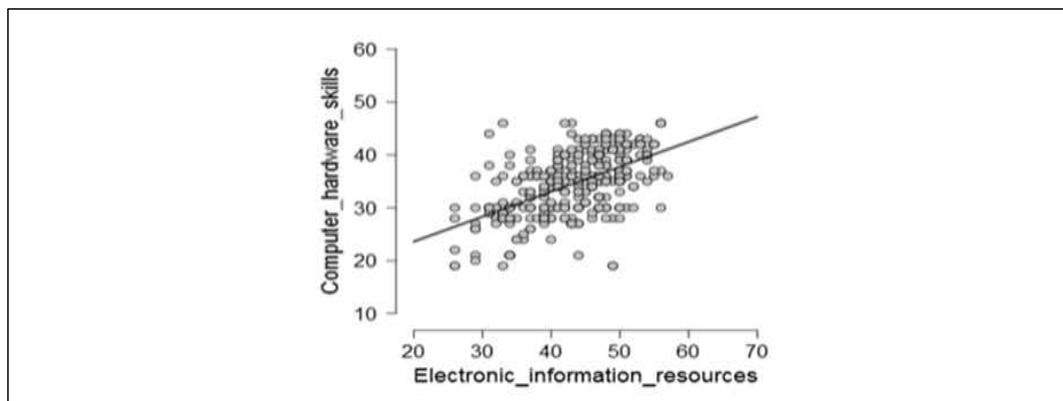
The result in **Table 2** revealed that there is a moderate positive and significant relationship between the students' computer hardware skills and their use of EIR in university libraries in South-West, Nigeria. This finding is so because, in the university libraries, the more students have computer hardware skills, the more there is a moderate tendency that their use of electronic information resources will be enhanced. That is to say that students' computer hardware skills have something significant to do with their use of electronic information resources in the universities. Hardware skills allow one to physically operate a computer. Hardware skills can be as simple as knowing how to turn devices on and off. They might also involve more complex tasks like connecting

machines to networks, changing parts, or fixing broken devices. This finding is in line with Ahn (2010) who in findings which revealed that the difficulty in fixing or replacing hardware by the students premeditates the acquisition of hardware skills that can help them in the use of other IT resources. Similarly, Renwick (2009) findings indicated that seventy-three percent used computers daily, and 82% felt that their computer literacy level was average or beyond. In agreement with this finding, Emwanta and Nwalo (2013) study revealed that computer literacy and subject background influenced the use of electronic information resources by the students. The similarities among the findings could have been attributed to similarities in the statistical analysis used in the studies.

**Table 2.** Summaries of Pearson r for the coefficient relationship between the students’ computer hardware skills (X) and their use of EIR (Y) in university libraries in South-West, Nigeria

V	n	Σ	r	MR	DR	Remarks
X	398	13783	<b>0.555</b>	<b>Moderate</b>	<b>Positive</b>	Moderate
Y	398	17270				Positive Relationship

Size (n), Summation (Σ), Pearson r (r), Magnitude of Relationship (MR), Direction of Relationship (DR) and Remarks



**Fig. 1.** Scatter plot of scores in students’ computer hardware skills against scores in their use of EIR

**Table 2** showed the computation result for the relationship between the students’ computer hardware skills and their use of EIR in university libraries in South-West, Nigeria. The result shows that the coefficient of relationship between the students’ computer hardware skills and their use of EIR in university libraries in South-West, Nigeria is 0.555. This indicated that the relationship of magnitude and direction is moderate and positive respectively.

Furthermore, the direction of the relationship was further presented and explained in the scatter plot (graphical diagram) above. It indicated that the line of fit tends upward from left to right showing the positive direction of the linear relationship between the students’ computer hardware skills and their use of EIR in university libraries in South-West, Nigeria. The positive direction of the relationship shows that an increase in one variable could lead to the same measure of the

increase in another variable or that a change in one variable will likely lead to the same measure of change in another variable. The summary from the table in order to answer the research question is that there is a moderate positive relationship between the students' computer hardware skills and their use of EIR in university libraries in South-West, Nigeria.

**RQ2:** *What is the coefficient relationship between students' computer software skills and their use of EIR in university libraries in South-West, Nigeria?*

The result in **Table 3** revealed that there is a moderate positive and significant relationship between the students' computer software skills and their use of EIR in university libraries in South-West, Nigeria. This shows that there is a moderate tendency for students' who have more computer software skills to also be skillful in the use of EIR in university libraries in South-West, Nigeria. That is to say that an improve students' computer software skills has an influence on their use of EIR in university libraries in South-West, Nigeria. To this effect, one can say that software skills help a person to efficiently use computer programs and applications. The kind of computer skills required by professionals differs according to job functions. This finding is in agreement with that of Spicer-Sutton, Lampley, and Good (2014) results which indicated that students and instructors are more likely to acquire skills that will enable access and use electronic resources for learning and research than acquiring hardware skills. In a related manner, Ademodi and Adepoju (2009) findings show that nearly half the respondents use Microsoft Word, with smaller numbers using other Microsoft products and other software such as Adobe and Corel products. The finding reveals that one-third of the respondents obtained skills through formal training. A slightly larger number learned through workshops, while one-fifth learned from friends. Only one-third of respondents have received formal computer training. The related nature of the findings could be attributed to the use of similar nature of locations.

**Table 3** showed the computation result for the relationship between the students' computer software skills and their use of EIR in university libraries in South-West, Nigeria. The result shows that the coefficient relationship between the students' computer software skills and their use of EIR in university libraries in South-West, Nigeria is 0.53. This indicated that the magnitude and direction of the relationship are moderate and positive respectively.

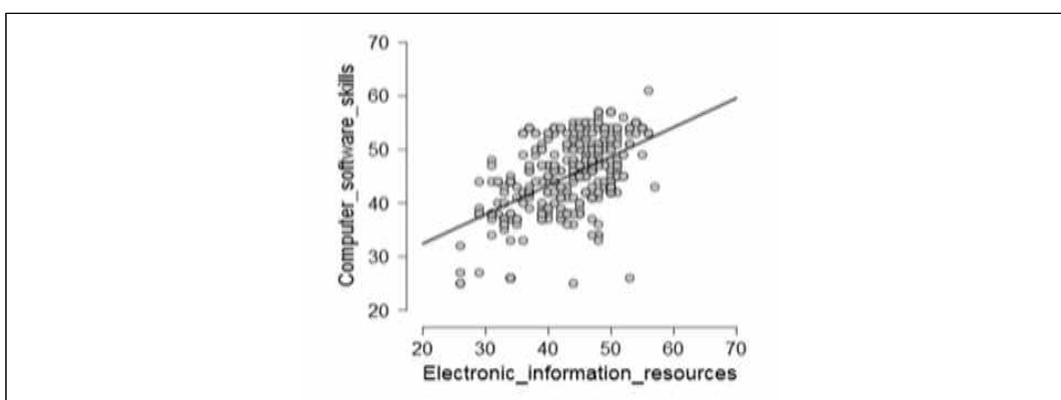
Furthermore, the direction of the relationship was further presented and explained in the scatter plot (graphical diagram) above. It indicated that the line of fit tends upward from left to right showing the positive direction of the linear relationship between the students' computer software skills and their use of EIR in university libraries in South-West, Nigeria. The positive direction of the relationship shows that an increase in one variable could lead to the same measure of increase in another variable or that a change in one variable will likely lead to the same measure of change in another variable. The summary from the table in order to answer the research question is that there is a moderate positive relationship between the students' computer software skills and their use of EIR in university libraries in South-West, Nigeria.

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**Table 3.** Summaries of Pearson r for the coefficient of relationship between the students’ computer software skills (X) and their use of EIR (Y) in university libraries in South-West, Nigeria

V	n	$\Sigma$	r	MR	DR	Remarks
X	398	17962	<b>0.53</b>	<b>Moderate</b>	<b>Positive</b>	Moderate
						Positive
Y	398	17270				Relationship

Size (n), Summation ( $\Sigma$ ), Pearson r (r), Magnitude of Relationship (MR), Direction of Relationship (DR) and Remarks



**Fig. 2.** Scatter plot of scores in students’ computer software skills against scores in their use of EIR

### 5.2 Research Hypothesis

**H01:** *There is no significant relationship between the students’ computer hardware skills and their use of EIR in university libraries in South-West, Nigeria.*

**Table 4** showed the computation result using a t-test of the significance of simple linear correlation statistics for the relationship between the students’ computer hardware skills and their use of EIR in university libraries in South-West, Nigeria. The result indicates the degree of freedom as 396 and the t-calculated value of 13.277 is greater than the t-tabulated value of 1.96. Since the t-calculated value is greater than the t-tabulated value, the researcher, therefore, rejected the null hypothesis; thus, deducing that there is a significant relationship between the students’ computer hardware skills and their use of EIR in university libraries in South-West, Nigeria.

**Table 4.** Summaries of t-test of simple linear correlation for the relationship between the students’ computer hardware skills and their use of EIR in university libraries in South-West, Nigeria

V	n	Σ	r	α	df	tcal	ttab	Decision
X	398	13783	-	-	-	-	-	-
	-	-	<b>0.555</b>	0.05	396	<b>13.277</b>	<b>1.96</b>	Reject Ho1
Y	398	17270	-	-	-	-	-	-

Sample Size (n), Summation (Σ), Coefficient of Relationship (r), Alpha Level (α), Degree of Freedom (df) and t-test of Significance of Simple Linear Correlation between two Variables

**Ho2:** *There is no significant relationship between the students’ computer software skills and their use of EIR in university libraries in South-West, Nigeria.*

**Table 5** showed the computation result using t-test of significance of simple linear correlation statistics for the relationship between the students’ computer software skills and their use of EIR in university libraries in South-West, Nigeria. The result indicates the degree of freedom as 396 and the t-calculated value of 12.431 is greater than the t-tabulated value of 1.96. Since the t-calculated value is greater than the t-tabulated value, the researcher therefore rejected the null hypothesis; thus, deducing that there is significant relationship between the students’ computer software skills and their use of EIR in university libraries in South-West, Nigeria.

**Table 5.** Summaries of t-test of simple linear correlation for the relationship between the students’ computer software skills and their use of EIR in university libraries in South-West, Nigeria

V	n	Σ	r	α	df	tcal	ttab	Decision
X	398	17962	-	-	-	-	-	-
	-	-	<b>0.53</b>	0.05	396	<b>12.431</b>	<b>1.96</b>	Reject Ho2
Y	398	17270	-	-	-	-	-	-

Sample Size (n), Summation (Σ), Coefficient of Relationship (r), Alpha Level (α), Degree of Freedom (df) and t-test of Significance of Simple Linear Correlation between two Variables

## 7. Conclusion

It is noticeable from the findings that students with computer skills must be better in the use of electronic information resources and undergraduate students should enhance their computer hardware skills since it is related with the use of EIR. The implications of this study are based on the findings and discussions. One of the findings of this study is that there is a moderate positive and significant relationship between the students’ computer hardware skills and their use of EIR in university libraries in South-West, Nigeria. This implies that if students continue to use and be acquainted with the knowledge of using computer hardware, there will be an improvement in the use of electronic information resources in the libraries in the universities, thus stimulating their interest in library

usage. The result on students' computer software skills and their use of EIR showed that there is a moderate positive and significant relationship between the students' computer software skills and their use of EIR in university libraries in South-West, Nigeria. This shows that students' computer software skills have a moderate tendency of contributing to their use of EIR. This means that students will now understand the need to use information-enhancing gadgets and devices for improved studies and knowledge improvement. This study is a correlational design that requires generalization, therefore generalization of its findings should be done with caution as what is applicable in the studied area may not be the same in other areas. In this study, only variables such as electronic information resources use in university libraries are considered to be influenced or associated with users' information technology literacy, introducing a related variable should be done with strict caution. The study can only represent what is pertinent among undergraduate students in public universities in the South-West only and could not be generalized to private universities or other tertiary institutions and other states.

Based on the followings of the study and conclusion, the following are recommended:

- (a) Undergraduate students should enhance their computer hardware skills since it is related to the use of electronic information resources in the universities.
- (b) The students should not relent on any program that will improve their computer software skills because it will have something to do with the use of electronic information resources.
- (c) There should be inclusion and teaching of internet and ICT literacy courses to undergraduates in the university through orientation and workshops.

## References

- Abe, K., Tateoka, T., Suzuki, M., Maeda, Y., Kono, K., & Watanabe, T. (2004). An Integrated Laboratory for Processor Organization, Compiler Design, and Computer Networking. *IEEE Transactions on Education*, 47(3), 311-320. <https://ieeexplore.ieee.org/document/1323143>
- Abubakar, D., & Adetimirin, A. (2015). Influence of Computer Literacy on Postgraduates Use of E-resources in Nigerian University Libraries. <http://digitalcommons.unl.edu/libphilprac/1207>
- Ademodi, D. T., & Adepoju, E. O. (2009). Computer Skill among Librarians in Academic Libraries in Ondo and Ekiti States, Nigeria. *Library Philosophy and practice*, 7(274). <https://digitalcommons.unl.edu/libphilpractice/274>
- Adeniran, P. O., & Onuoha, U. D. (2018). Influence of Information Literacy Skills on Postgraduate Students' Use of Electronic Resources in Private University Libraries in South-West, Nigeria. *Communications and Network*, 10(4), 164. <http://www.scirp.org/journal/cn>.
- Ahn, J. O. (2005). Evaluation of Computer Skills in Second Year Premedical Students for Medical Informatics Curriculum. *Korean Journal of Medical Education*, 17(2), 121-134. <https://www.kjme.kr/m/journal/view.php?number=643>
- Azubuikwe, C. O. (2016). Information Literacy Skills and Awareness of Electronic Information Resources as Influencing Factors of their Use by Postgraduate Students in Two Universities in South-West
-

- Nigeria. *Library Philosophy and Practice (e-journal)*.  
<http://digitalcommons.unl.edu/libphilprac/1407>
- Burch, C. (2002). Logisim: A Graphical System for logic Circuit Design and Simulation. *Journal on Educational Resources in Computing*, 2(1), 5-16. <https://doi.org/10.1145/545197.545199>
- Comer, D. E. (2003). *Hands-on networking with internet technologies*. Prentice-Hall.
- Emwanta, M. G., & Nwalo, K. I. N. (2013). Influence of Computer Literacy and Subject Background on Use of Electronic Resources by Undergraduate Students in Universities in South-western Nigeria. *International Journal of Library and Information Science*, 5(2), 29-42.  
<http://www.academicjournals.org/IJLIS>
- IGI Global (2019). *What is electronic resources*.  
<https://www.igi-global.com/dictionary/electronic-resources/43164>
- Indeed C. G. (2019). Computer skills: Definitions and Examples.  
<https://www.indeed.com/career-advice/resumes-cover-letters/computer-skills>
- Islam, S. (2013). Library Digitization in Bangladesh: a Developing Country Perspective. *Research Journal of Library Sciences*, 1(1), 2-9.  
<https://www.semanticscholar.org/paper/Library-Digitization-in-Bangladesh%3A-A-Developin-g-Islam/47dbd1443ed1812b0f8331f5b43311e70ceecac4>
- Ismaila, Y. A. (2019). Information Literacy Skills on the Use of Electronic Resources by Undergraduates' Students of University of Ilorin and Kwara State University Malete, Kwara State, Nigeria. *Library Philosophy and Practice*, 1-21.  
<https://digitalcommons.unl.edu/libphilprac/2362/>
- Israel, O., & Nsibirwa, Z. (2018). Information Literacy Skills in Using Electronic Information Resources. *Library Philosophy and Practice*, 1. <http://digitalcommons.unl.edu/libphilprac/1947>
- Katz, J. Y. (2008). The Relationship between Distance Learning Methods and Satisfaction and Achievement of College students. *Austrian Computer Society*, 569-578.  
<https://www.academicresearchjournals.org>
- Kenchakkanavar, A. Y. (2014). Types of E-resources and its Utilities in Library. *International journal of information sources and services*, 1(2), 97-104.  
<https://www.researchgate.net/publication/268508509>
- Leed, P. D., & Ormrod, J. E. (2010). *Practical Research: Planning and Design* (9th ed.). Pearson Educational International.
- Manhas, R., Kaur, A. G., & Rani, S. (2015). Use of Internet and Electronic Information Resources by Teachers and Students of Physiotherapy Colleges of Punjab, India: A Case Study. *American Journal of Educational Research*, 3(7), 886-892. <http://www.sciepub.com/journal/education>
- Manjack, F. U., Fari, S. A., & Dangani, B. U. (2019). *Utilization of Electronic Information Resources by the Undergraduate Students in the University Libraries in Gombe State, Nigeria*.  
[https://www.researchgate.net/profile/Felix\\_Usman\\_Manjack/publication/331522293](https://www.researchgate.net/profile/Felix_Usman_Manjack/publication/331522293)
- Rahman, M. (2014). *Use and Applications of Library Software in University Libraries of Bangladesh* [Doctoral dissertation, University of Dhaka]. ACADEMIA. [https://www.academia.edu/8247473/Use\\_and\\_Applications\\_of\\_Library\\_Software\\_in\\_University\\_Libraries\\_of\\_Bangladesh](https://www.academia.edu/8247473/Use_and_Applications_of_Library_Software_in_University_Libraries_of_Bangladesh)
- Renwick, S. (2009). Knowledge and Use of the Electronic Information Resources by Medical Sciences
-

- Faculty at the University of the West Indies. *Journal of the Medical Library Association*, 93(1), 21-31. <https://www.academia.edu/42018479>
- Sadiku, S. A., & Kpakiko, M. M. (2017). Computer Self Efficacy and Use of Electronic Resources by Students in Nigerian University Libraries. *Journal of Applied Information Science and Technology*, 10(1), 91-99. <https://www.jaistonline.org>
- Sarkar, N. I. (2005). LAN-Designer: A software tool to enhance learning and teaching server-based LAN design. *International Journal of Information and Communication Technology Education*, 1(2), 74-86. <https://www.igi-global.com/article/lan-designer-software-tool-enhance/2263>
- Sharma, C. (2009). Use and Impact of E-resources at Guru Gobind Singh Indraprastha University (India): A case study. *Electronic Journal of Academic and Special Librarianship*. [http://southernlibrarianship.icaap.org/content/v10n01/sharma\\_c01.html](http://southernlibrarianship.icaap.org/content/v10n01/sharma_c01.html)
- Spicer-Sutton, J., Lampley, J., & Good, D. W. (2014). Self-assessment and Student Improvement in an Introductory Computer Course at the Community College Level. *Journal of Learning in Higher Education*, 10(1), 59-65. <https://files.eric.ed.gov/fulltext/EJ1143313.pdf>
- Toyo, O. D. (2017). Undergraduates' Information Literacy Skills and the Use of Electronic Resources in Delta State University, Abraka, Nigeria. *International Journal of Education and Evaluation*, 3(1), 27-36. <https://iirdpub.org/get/IJEE/VOL.%203%20NO.%201%202017/UNDERGRADUATES%E2%80%99%20INFORMATION.pdf>
- Taro Yamane. (1967). <https://www.tarleton.edu/academicassessment/documents/samplesize.pdf>
- Usman, K. P. T., & Gopakumar, V. (2018). Information Technology Skills Required for Library Professionals in Digital era: an Introspection. *Information Technology*, 8(1). <https://www.ijlis.org/articles/information-technology-skills-required-for-library-professionals-in-digital-era-an-introspection.pdf>
- Sharma, V. K. (2019). *Why Computer Skills are Important for Online Learning*. <https://www.klientsolutech.com/why-computer-skills-are-important-for-online-learning/>
- Asha, R. M., Kaur, G., & Rani, S. (2015). Use of Internet and Electronic Information Resources by Teachers and Students of Physiotherapy Colleges of Punjab, India: A Case Study. *American Journal of Educational Research*, 3(7), 886-892. <https://doi.org/10.12691/education-3-7-12>. <http://pubs.sciepub.com/education/3/7/12/index.html>
- Odede, I. R., & Zawedde, N. (2018). Information Literacy Skills in using Electronic Information Resources. *Library Philosophy and Practice (e-journal)*. 1947. <http://digitalcommons.unl.edu/libphilprac/1947>

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