Information and Communication Technology (ICT) Usage and Academic Performance of Business Education Students in Rivers State Universities

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ABSTRACT
The study examined Information and Communication Technology (ICT) usage and academic performance of Business Education students in Rivers State Universities. The study adopted a correlation research survey design. The population of the study consists of 738 Business Education students of 2017/2018 academic session. Purposive sampling technique was used in selecting 456 (RSU = 302; IAUE = 154) final year students which was used for the study. This represents 62% of the entire population. Three research questions were answered with simple regression while two null hypotheses were tested with correlation in the study. The instrument used for data collection was a self-structured questionnaire validated by three experts and a reliability coefficient of 0.84 was obtained through Pearson Product Moment Correlation (PPMC) method. It was found that there was a moderate positive relationship between ICT facilities utilized and students’ academic performance. The study also found that there was low positive relationship between competency in utilization and academic performance of students etc. Based on the findings of the study, it was recommended among others that lecture for Business Education students should be ICT based to improve skills and competencies in utilization of ICT. It was further recommended that more ICT facilities should be provided by the school to be used by students to enhance performance.

Keywords: ICT, Academic Performance, Business Education, Visual Communication Media, ICT Facilities and ICT Competency

INTRODUCTION
The 21st Century has recorded the development of learning especially with the introduction of electronic learning technology. In developed countries such as China, Japan etc, learning is made easier as a result of easy accessibility to computers, internet service and other electronic devices. Students are, therefore, enthusiastic about the usage of these devices in the learning process. There seems to be open access to information on a wide variety of subjects (Bupo & Ndinechi, 2015). Information and Communication Technology (ICT) has open access to information on a wide variety of subjects which include Business Education to enhance student’s performance. According to Nwagwu and Azih (2016), the world is rapidly tending to a global digital society through the use of ICT facilities and at the heart of this revolution is the ease through which information, ideas, innovations and life styles spread to nooks and crannies of the
world. It has revolutionized the nature and manner of instructional preparation and delivery in education generally and Business Education programmes are bound to be affected by this rapid change of Information and Communication Technology (ICT).

According to Ajisafe (2014), Information and Communication Technology (ICT) is the technology that help students to record, store, process, retrieve, transfer and receive information. World Bank (2007) asserted that Information Communication Technology (ICT) involves the use of hardware, software, networks and media for the collection, storage, processing, transmission and presentation of information (voice, data, text, images etc) as well as related services. According to Obanya (2002), ICT is a broad term that has to do with the harnessing of process, the methods and the product of electronic communication related technologies and other related resources in today’s knowledge driven society, for enhancing the productivity, the spread and efficiency of set programme activities geared towards the achievement of clearly defined goals. Also, Deebom and Zite (2016) defined Information and Communication Technology (ICT) as electronic media, devices and application used in the classroom to aid effective teaching and learning processes. All such materials, media and devices provided by ICT which appeal to all the senses and feeling and learning constitute teaching and learning materials.

Today, the adventure and advancement of new technologies (ICT) has posed challenge the traditional method and process of learning and have also change the way education is managed to a more flexible, friendly and simplified form (Deebom & Zite, 2016). The United Nation Education Scientific and Cultural Organizations (UNESCO, 2004) stressed that ICT has turned from being a technology of communication and information alone, but to a curriculum creation and delivery system for educators and learners.

Okereke (2005) reports that in the developed countries, various electronic devices and facilities have been used to aid education. He posits that electronic mail, real time text conferencing, and online tutorials have been used in the teaching and learning process for several years. Some e-learning platforms used in the developed countries, as listed by Ipaye (2011), include websites, wikis, blogs, Second Life, e-mail, twitters, course management systems, video/audio podcasts, facebook, threaded discussion lists, video/audio text chat, videoconferences software etc. However, e-learning appears to be poorly utilized in Nigerian Tertiary Institutions. It appears that Business Education students in many institutions still do not have e-mail addresses; cannot operate a computer and have little knowledge of e-learning platforms. As posited by Olusegun, Gabriel, Sushil and Zhang (2006), e-learning utilization is influenced by the students’ computer literacy and many Business Education students do not have the needed competency in computer operations that forms the basis for e-learning integration to enhance academic performance. Business Education is defined by Nwagwu and Azih (2016) as a vocational programme that equips the recipients with skills, attitudes, knowledge and understanding needed for effective participation and contribution as producers and/or consumers of business products. It therefore means that Business Education prepares individuals who will adequately participate in business activities and also equip individuals with business knowledge and skills. These noble objectives of Business Education could not be achieved without utilizing this technology (ICT) in the training of their learners through the integration of e-learning.

The usage of e-learning by Business Education students in tertiary institutions will lay the foundation for computer and software utilization in pursuit of academic programmes. It also increases the performance of students as teaching and learning are made easy and more realizable other than being abstract. Also, it help them in handling assignment, writing ICT-based examination, presenting seminars, effective in research and also packaging messages, disseminating message and receiving messages in modern offices. In light of the above, Business Education students should utilize ICT innovations to equip and improve their academic performance through modern learning techniques. Academic performance has been define by Komba, Hizza, and Jonathan (2013) as the accomplishment of a given task that is measured against predetermined standards of accuracy, completeness, cost, and speed. It is also refer to the act of academic in which students deal with studies and how well they meet the standards set out by the responsible authorities responsible. From the above, it is clear that today’s academic performance of Business
Education students’ is sine qua non to utilization of Information and Communication Technology in their daily academic activities.

**Statement of the Problem**
It is no longer gainsaying that traditional educational practices no longer provide students with all the necessary skills to survive economically in today’s work place and also to enhance academic performance especially among Business Education students. This is so because Teaching and learning process in Business Education in Nigeria tertiary institutions is still at its crudest form where lecturers and students are still relying on textbooks information and lecturers class verbalization due to the general poor attitude towards innovation and adoption of modern technologies such as ICTs (Edet & Francis, 2013). Also, Ajayi (2008) noted that today’s schools are organized around yesterday’s ideal, yesterday’s needs, and yesterday resources and they were not even doing very well yesterday.

Although, the use of computer applications in teaching has no doubt contributed immensely to the delivery of knowledge. It has made the teaching and learning process more exciting and easy to understand approach of learning encouraged. ICT has greatly affected the way and manner students of Business Education students’ approaches academic and research challenges and its impact on our daily lives cannot be over emphasized. Consequently, it is observed that many Business Education lecturers and students are yet to fully utilized ICT for teaching and learning to improve the academic performance especially in Business Education. It is also sad to note that teaching at higher level of education and Business Education in particular is still dependent on traditional practices and materials and that Information and Communication Technology facilities are rarely utilized by its students (Gbenga, 2006; Nwaosa & Okolocha, 2014). It is against this backdrop that this study seeks to examine the relationship between Information and Communication Technology (ICT) usage and academic performance of Business Education students in Rivers State Universities.

**Purpose of the Study**
The purpose of this study is to examine how Information and Communication Technology (ICT) usage relates to academic performance of Business Education students in Rivers State Universities. Objectively, this study tends to:

i. Identify the extent to which ICT facilities that are utilized by Business Education students relate to academic performance in Rivers State Universities.

ii. Examine the extent to which visual communication media relates to academic performance of Business Education students in Rivers State Universities.

iii. Find out how competency of Business Education students in utilizing ICT tools relates to academic performance in Rivers State Universities.

**Research Questions**
The following research questions were answered to guide the study.

i. To what extent does ICT facilities utilized by Business Education students relate to academic performance in Rivers State Universities?

ii. How does visual communication media relates to Business Education students’ academic performance in Rivers State Universities?

iii. How does ICT competency relates to academic performance of Business Education students in Rivers State Universities?

**Hypotheses**
The following null hypotheses were formulated and tested in this study at 0.05 level of significance.

1. There is no significant relationship between ICT facilities utilized by Business Education students and academic performance in Rivers State Universities.

2. There is significant relationship between ICT competency and academic performance of Business Education students in Rivers State Universities.
METODOLOGY
The study adopted the correlation research survey design. This study was carried out in the Rivers State Universities, Port-Harcourt. The population of the study consisted of 738 registered Business Education students of 2017/2018 academic session in Rivers State Universities (Source: Information Technology Center Data, 2018). Purposive sampling technique was used in selecting 456 (RSU = 302; IAUE = 154) final year students which was used for the study. This represents 62% of the entire population. The instrument for data collection was a self-constructed questionnaire titled “Information and Communication Technology and Students’ Academic Performance Questionnaire” (ICTSAPQ). The ICTSAPQ was divided into different sections based on the purpose of the study. Section A was design to capture information on the ICT facilities that are utilized by Business Education students while Sections B was used to obtain information relating to visual media communication and C captures information relating to competency of students in utilizing ICT by students of Business Education in Rivers State Universities. ICTSAPQ was patterned after Modified Likert-4 point rating scale of Very High Extent (VHE), High Extent (HE), Low Extent (LE) and Very Low Extent (VLE) with numerical values of 4, 3, 2 and 1 respectively. In order to establish the validity of the instrument, copies of the instrument were given to three experts. One expert was chosen from Measurement and Evaluation, Ignatius Ajuru Universities and two from Department of Business Education, Rivers State Universities for face and content validity. The reliability of the instrument (ICTSAPQ) was established through test-retest method for measure of stability with 27 Business Education students through simple random sampling technique who were not part of the sample. The initial (test) and the re-test scores of the sample were correlated using Pearson Product Moment Correlation (PPMC) method. A reliability coefficient of 0.84 was obtained which was considered reliable and adequate since Helmstadter (as cited in Maduabum, 2013) stressed that tests that have reliability estimates close to 0.80 are reliable. The administration of the instrument was done with the assistance of three students who were trained by the researcher as research assistant. Completed copies of the instrument (ICTSAPQ) were collected and analysed with simple regression and correlation through the use of Statistical Package for Social Science (SPSS) version 20.0. Research questions were answered with simple regression analysis while hypotheses were tested with correlation.

3.0 RESULTS
The analysis of data in relation to each of the research questions are presented in Tables 1-4.

Research Question 1: To what extent does ICT facilities utilized by Business Education Students relate to academic performance in Rivers State Universities?

Table 1a&b: Regression Summary for Relationship between ICT facilities Utilized by Business Education Students and Academic Performance in Rivers State Universities

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students’ Academic Performance</td>
<td>3.5750</td>
<td>0.93775</td>
<td>456</td>
</tr>
<tr>
<td>ICT Facilities Utilized</td>
<td>4.1417</td>
<td>0.45089</td>
<td>456</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model Summary</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.539a</td>
<td>0.291</td>
<td>0.282</td>
<td>0.79469</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), ICT Facilities Utilized

To answer the research question, results from Table 4.1b produced a correlation coefficient, ‘r’ of 0.539 between ICT facilities utilized and Business Education students’ academic performance in Rivers State Universities. Therefore, it means that there is a moderate positive relationship between ICT facilities utilized and students’ academic performance in Rivers State Universities.
**Research Question 2:** How does visual communication media relates to Business Education students’ academic performance in Rivers State Universities?

**Table 2a&b:** Regression Summary for Relationship between Visual Communication Media and Business Education Students Academic Performance in Rivers State Universities.

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<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Deviation</td>
<td>N</td>
</tr>
<tr>
<td>Students’ Academic Performance</td>
<td>3.5750</td>
<td>0.93775</td>
<td>456</td>
</tr>
<tr>
<td>Visual Communication Media</td>
<td>4.1222</td>
<td>0.32748</td>
<td>456</td>
</tr>
</tbody>
</table>

**Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.813a</td>
<td>0.098</td>
<td>0.087</td>
<td>0.89620</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Visual Communication Media

Results from Table 4.2b produced a correlation coefficient, ‘r’ of 0.813 between visual media communication and Business Education Students’ academic performance in Rivers State Universities. This means that there is a high positive relationship between level of utilization of visual media communication and Business Education Students’ academic performance in Rivers State Universities.

**Research Question 3:** How does ICT competency relates to academic performance of Business Education students in Rivers State Universities?

**Table 3a&b:** Regression Summary for Relationship between ICT Competency and Business Education Students Academic Performance in Rivers State Universities.

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</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Deviation</td>
<td>N</td>
</tr>
<tr>
<td>Students’ Academic Performance</td>
<td>3.5750</td>
<td>0.93775</td>
<td>456</td>
</tr>
<tr>
<td>ICT Competency</td>
<td>3.9458</td>
<td>0.70898</td>
<td>456</td>
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**Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.770a</td>
<td>0.592</td>
<td>0.587</td>
<td>0.60253</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), ICT Competency

Results from Table 4.3b produced a correlation coefficient, ‘r’ of 0.77 between ICT competency and students’ academic performance of Business Education in Rivers State Universities. This means that there is a high positive relationship between ICT competency and Business Education students’ academic performance in Rivers State Universities.
Statistical Test of Hypotheses

H₀₁: There is no significant relationship between ICT facilities utilized by Business Education Students and academic performance in Rivers State Universities.

Table 4.5: Regression Summary for Relationship between ICT facilities Utilized and Business Education Students’ Academic Performance in Rivers State Universities

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>-1.071</td>
<td>0.826</td>
<td>-1.296</td>
<td>0.199</td>
</tr>
<tr>
<td>1 ICT Facilities Utilized</td>
<td>1.122</td>
<td>0.198</td>
<td>0.539</td>
<td>5.657</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Students’ Academic Performance

To test the hypothesis, results from Table 4.5 with a Beta (β) value (same as correlation coefficient, R) of 0.539 produced a t-value of 5.657 which is significant at P (0.000) less than chosen alpha (0.05). The result is significant and the null hypothesis is rejected (P<0.05). Thus, there is a significant relationship between ICT facilities utilized and Business Education students’ academic performance in Rivers State Universities.

H₀₂: There is significant relationship between ICT competency and academic performance of Business Education students in Rivers State Universities.

Table 4.6: Regression Summary for Relationship Between ICT Competency and Students’ Academic Performance in Rivers State Universities

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>-0.124</td>
<td>1.273</td>
<td>-0.098</td>
<td>0.922</td>
</tr>
<tr>
<td>1 ICT Competency</td>
<td>0.897</td>
<td>0.308</td>
<td>0.813</td>
<td>2.915</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Students’ Academic Performance

To test the hypothesis, results from Table 4.6 with a Beta (β) value (same as correlation coefficient, R) of 0.813 produced a t-value of 2.915 which is significant at P (0.005) less than chosen alpha (0.05). The result is significant and the null hypothesis is rejected (P<0.05). Thus, there is a significant relationship between competency in ICT utilization and Business Education students’ academic performance in Rivers State Universities.

DISCUSSION OF FINDINGS

The results of the study shows that students of Business Education in Rivers State Universities utilized ICT facilities which enhance academic performance; hence there is a moderate positive relationship between ICT facilities utilized and students’ academic performance in Rivers State Universities. This result is in agreement with Bupo and Ndinechi (2015) who found out that student of Business Education in Anambra State utilized ICT facilities in e-learning for educational purposes. The result of this study is also supported by findings of Manir (2009) that there is tremendous growth of computer equipment and internet utilization by students of Nigerian tertiary institutions. This shows that to some extent, e-learning is being often utilized by Business Education students in tertiary institutions which contradicts the views of Abubakar (2010). Findings in the study in the study further revealed that there is a high positive
relationship between competency in utilization and Business Education Students’ academic performance in Rivers State Universities. These findings are supported by Eke (2011) who opined that the utilization of ICT for e-learning in Nigerian tertiary institutions is still in its infancy stage. The study also agrees with the findings of Ajadi, Salawu and Ayeode (2008) who, at the time of their research, argued that there is gross underutilization of e-learning in Nigerian tertiary institutions.

CONCLUSION
Based on the findings of the study, it is concluded that utilization of ICT by students has a relationship with academic performance. Hence, students of Business Education in Rivers State Universities utilize ICT facilities to a high extent but have a low level of competency due the constraints facing its utilization. These are seen in students’ ability in the utilization of ICT tools and facilities.

RECOMMENDATIONS
Based on the findings of the study, it was recommended as follows:

i. More ICT facilities should be provided by the school to be used by students of Business Education to enhance their academic performance.

ii. Lecturers should made Lectures more ICT base as to improve the skills and competencies of utilizing ICT by the students.

REFERENCES


