EXTENT OF ICT RESOURCES UTILIZATION IN THE ADMINISTRATION OF UNIVERSITIES IN NIGERIA

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Abstract
The study explored the extent of ICT resources utilization in the administration of universities in Nigeria. The study is a descriptive survey research design. Five research questions guided the study. The sample was 275 which was made up of two groups of respondents namely: Academic staff (125) and senior administrative staff (150) from universities in South-east Nigeria. The instrument for data collection was a 30-item researcher-developed Questionnaire titled "Questionnaire on Extent of ICT Resources Utilization (QEIRU)". It was validated by experts. The overall reliability co-efficient of the instrument was 0.92. The data collected were analyzed using frequencies and percentages. The findings revealed low extent (LE) of utilization of ICT resources in staff personnel administration, student personnel, academic and general administration. On the other hand, the findings revealed high extent (HE) of ICT resources utilization in financial administration of the universities. Finally, there was discussion of findings and recommendations were made. One of the recommendations was that, the University authority should procure adequate quantities of ICT Resources for effective running of the University Administration.

Key words: ICT, Resources, Utilization, Administration, University.

Introduction

ICT stands for Information and Communication Technology. It is a technological innovation which has brought the world into a global village. It is a techno-oriented change which has tremendous influence in every aspect of human endeavour in the 21st century. Nwana (2008) pointed out that it is a modern means of using emergent technologies namely: the computer, internet, e-mail, smart phones, satellite systems, fibre optic cables, multimedia television, machines, videophones and teleconferencing devices for information gathering, processing and dissemination. Nguon (2015) conceptualized ICT as the use of electronic media especially the computer for collecting information at source; and for communication of the information.

ICT has permeated every sector of the society namely: Commerce, industry, mines, energy and power, finance, banking, insurance, politics and social life, health and education among others. The university as an aspect of tertiary education needs to be using ICT resources for effective administration. Hornby (2015) defined administration as the activities that are done in order to plan, organize and run a business, school or other institutions. Administration in the university is concerned with day-to-day running of various units, departments and faculties of the universities. In this regard, both the Academic staff and the (non-teaching) Administrative staff are involved. For instance, the academic staff keep lecture attendance, conduct exams, mark, score, grade and publish results. The administrative staff keep all files namely: staff personnel files, student personnel files and that of general administration which includes staff e-attendance register, e-circulars, e-payment receipts, inventory files and files of meeting proceedings among others.

To carry out the administrative duties effectively, ICT resources need to be fully utilized. Haan (2007) explained utilization as the act of using something by a given group to achieve specific purpose. Contextually, utilization is the usage of ICT resources in university administration. Some of the resources as identified by Nwana (2014) and Nwana, Ofoegbu and Egbe (2017) are: computer, printer, scanner, internet, e-mail, digital camera, digital diary, packet switching devices and campus-server. Others are CD-Rom, audio discs, video discs, flash drive, modern, memory cards, e-readers and e-books. The CD-Rom for instance contains up to 650 megabytes (MB) of data, which is equivalent of 300,000 pages of a book or text material. This goes to stress that ICT resources are crucial in university administration in contemporary times. University education was recognized by the Federal Republic of Nigeria (FRN, 2014 p. 28-30) as the education given after secondary education.

The use of ICT resources in the management of records in various offices and departments in the university implies ICT-driven administration. That is switching over to the use of electronic devices in running the day-to-day activities of the universities. It is simply and squarely, the automation of the administrative process of the universities. The administrative process such as staff personnel administration, general administration seem to have been influenced by ICT. It is against this background that the present study seeks to determine the extent of ICT resources utilization in university administration in Nigeria.

Statement of the Problem

The adoption of ICT seems to have had some influence in the administrative processes in the universities. For instance, the manual typewriters have been kept aside and computers are being used. There is now the online filing of admission forms, online publishing of admission list, e-registration are e-payments. These are done for easy documentation of

records. The staff have received on-the-job training for effective use of ICT resources. Yet, they seem challenged in using ICT resources e.g computer, internet, e-portfolio and e-books among others in the management of records and files namely: staff personnel records, students personnel records and records of general administration e.g meeting proceedings, attendance register, circulars, inventory, medical records, academic planning, physical planning, works and transport records. It is against this backdrop that the present study seeks to determine the extent of ICT resources utilization in university administration in Nigeria.

Purpose of the Study

The study determined:

1. Extent of ICT resources utilization in staff personnel administration.
2. Extent of ICT resources utilization in students' personnel Administration.
3. Extent of ICT resources utilization in Academic Administration.
4. Extent of ICT resources utilization in Financial Administration.
5. Extent of ICT resources utilization in General Administration.

Research Questions

The following research questions guided the study:

1. To what extent are ICT resources utilized in staff personnel administration?
2. To what extent are ICT resources utilized in students' personnel administration?
3. To what extent are ICT resources utilized in Academic administration?
4. To what extent are ICT resources utilized in financial administration?
5. To what extent are ICT resources utilized in General Administration?

Method

The study adopted descriptive survey research design. In the view of Nworgu (2015), survey research design is one in which a group of people or items are being studied by collecting and analyzing data from only a few people or items considered to be representative of the entire population. It is of necessary in this study since opinions of the respondents will be sought. The study was carried out in the universities within the states in south east of Nigeria namely: Abia, Anambra, Ebonyi, Enugu and Imo States. This area was chosen because the researcher hails from the area and is conversant with the environment. The population of the study was made up of Lecturers and Senior Administrative staff in universities in south east Nigeria. The population was chosen because they are in the best position to give the required information for the purpose of this study. The sample for the study comprised of 275 respondents. The proportionate stratified random sampling technique was used to select 25 lecturers and 30 senior administrative staff from each university.

The instrument for data collection was a 30-item Questionnaire developed by the researcher titled "Questionnaire on Extent of ICT Resources Utilization (QEIRU). It has

parts I and 2. Part I dealt with collection of personal information about the respondents. Part 2 has sections A, B, C, D, and E which are based on Likert-type 4- point rating scale with response modes viz: Very High Extent(VHE), High Extent (HE), Low Extent (LE) and very Low Extent (VLE). The instrument was validated by experts. The reliability of the instrument was carried out by administering the questionnaire on 20 respondents (10 Lecturers and 10 Senior Administrative staff) in universities in Bayelsa State and Rivers State in South-south Nigeria. The states have geographical boundaries and common features with south-east Nigeria. To determine the reliability of the instrument, the Cronbach Alpha method was used. The overall reliability co-efficient stood at 0.92 which gives a high attribution of reliability of the instrument to be used for empirical research.

In distributing copies of the questionnaire, the researcher with three trained research assistants adopted the technique of on-the-spot distribution and collection in order to avoid mortality of the instrument. For data analysis, frequencies and percentages were used. The acceptable level for percentage was 50% and above for items indicating positive, that is, High Extent (HE). Conversely, any item which scored below 50% was regarded as negative that is, low Extent (LE).

Findings:

Research Question I: To What Extent are ICT Resources Utilized in Staff Personnel Administration?

Table I: Frequencies and Percentages of the Respondents on Extent of ICT Resources Utilization in Staff Personnel Administration.

		Academic Staff. N=125			**Senior Admin staff. N=150**		
S/N	**Items**	**Freq yes %**	**Freq. No %**	**Decision**	**Freq Yes %**	**Freq. No %**	**Decision**
1	Using ICT Resources for keeping recruitment records.	28.8	71.2	LE	22.0	78.0	LE
2	Using ICT Resources for management of duty roster	24.0	76.0	LE	13.2	86.7	LE
3	Using ICT Resources for management of leave records	18.4	81.6	LE	20.7	79.3	LE
4	Using ICT Resources for keeping appraisal and promotion records	27.2	72.8	LE	15.3	84.7	LE
5.	Using ICT Resources for keeping retirement records	9.6	90.4	LE	18.7	81.3	LE
	Cluster %	**21.6**	**78.4**	**LE**	**18.0**	**82.0**	**LE**

The result presented in table I indicated that the respondents affirmed that ICT resources are not being utilized in staff personnel administration as shown in items 1-5 namely:

keeping recruitment records, management of duty roster, management of leave records, keeping of promotion records; and keeping retirement records. The cluster percentage of responses from the two group of respondents indicated 21.6% (yes) for Academic staff and 18% (yes) for senior administrative staff, all below 50% (yes) which is the acceptable level for utilization. Thus, low-level of utilization.

Research Question 2: To What Extent are ICT Resources Utilized in Students Personnel Administration?

Table 2: Frequencies and Percentages of the Respondents on Extent of ICT Resources Utilization in Students Personnel Administration.

		Academic Staff. N=125			**Senior Admin staff. N=150**		
S/N	**Items**	**Freq yes %**	**Freq. No %**	**Decision**	**Freq Yes %**	**Freq. No %**	**Decision**
6	Using ICT Resources for keeping students admission records	73.6	26.4	HE	74.7	25.3	HE
7	Using ICT Resources for keeping students hostel records	3.2	96.8	LE	19.3	80.7	LE
8	Using ICT Resources for recording students Industrial work Experience Scheme (SIWES)	88.8	11.2	HE	82.7	17.3	HE
9	Using ICT Resources for recording students co-curricular activities e,g sports	4.8	95.2	LE	20.0	80.0	LE
10	Using ICT Resources for keeping and forwarding students transcript	29.6	70.4	LE	29.3	70.7	LE
	Cluster%	**40.0**	**60.0**	**LE**	**45.2**	**54.8**	**LE**

Table 2 revealed that ICT resources are not being utilized in students' personnel administration as indicated in items 6-10 namely: keeping students' admission records, hostel records, records of Students Industrial Work Experience Services (SIWES), records of students' co-curricular activities e.g. sports and keeping of students' transcripts. The cluster percentage from the two group of respondents indicated 40% (yes) for Academic staff and 45.2% (yes) for Senior Administrative staff, all below 50% (yes) which is the acceptable level for utilization. Hence, low-level of utilization.

Research Question 3: To What Extent are ICT Resources Utilized in Academic Administration?

Table 3: Frequencies and Percentages of the Respondents on Extent of ICT Resources Utilization in Academic Administration

		Academic Staff. N=125			Senior Admin staff. N=150		
S/N	**Items**	**Freq yes %**	**Freq. No %**	**Decision**	**Freq Yes %**	**Freq. No %**	**Decision**
11	Using ICT resources for Production and e-mailing of lecture time-table	16.8	83.2	LE	22.7	77.3	LE
12	Using ICT resources for Online lecture delivery	0.0	100	LE	0.0	100	LE
13	Using ICT resources for Keeping attendance register (e-register)	0.0	100	LE	0.0	100	LE
14	Using ICT resources for quizzes, tests and examinations	7.2	92.8	LE	8.0	92.0	LE
15	Using ICT resources for marking, scoring, grading and forwarding of semester results.	64.0	36.0	HE	73.3	26.7	HE
	Cluster %	**17.6**	**82.4**	**LE**	**20.8**	**79.2**	**LE**

The result in table 3 shows that ICT resources are not utilized in Academic administration as evidenced in items 11, 12, 13 and 14 namely: production and e-mailing of lecture timetable, online lecture delivery, keeping electronic attendance for lectures, conducting quizzes, tests and examinations but it is utilized for marking, scoring, grading and forwarding of semester results, item 15. The cluster percentage for the two group of respondents are as follows: Academic staff 17.6% (yes) and Senior Administrative staff, 20.8% (yes), all below 50% (yes) which is the acceptable level for utilization. In other words, low-level of utilization.

Research question 4: To What Extent are ICT Resources Utilized in Financial Administration?

Table 4: Frequencies and Percentages of the Respondents on Extents of ICT Resources Utilization in Financial Administration.

		Academic Staff. N=125			Senior Admin staff. N=150		
S/N	**Items**	**Freq yes %**	**Freq. No %**	**Decision**	**Freq Yes %**	**Freq. No %**	**Decision**
16	Using ICT Resources for staff payroll	96.8	3.2	HE	91.3	8.7	HE
17	Using ICT resources	100	0.0	HE	100	0.0	HE

	for payment of salaries						
18	Using ICT Resources for payment of Honoraria	53.6	46.4	HE	80.7	19.3	HE
19	Using ICT Resources for documentation of payment	87.2	12.8	HE	59.3	40.7	HE
20	Using ICT Resources for transmission of financial data packets to university database	10.4	89.6	LE	36.7	63.3	LE
	Cluster %	**69.6**	**30.4**	**HE**	**73.6**	**26.4**	**HE**

Table 4, the respondents affirmed that ICT resources are utilized in financial administration as indicated in items 16, 17, 18 and 19 namely: staff payroll, payment of salaries, payment of honoraria and documentation of payments. On the other hand, they indicated that ICT resources are not utilized in transmission of financial data packets to university database, item 20. The cluster percentage of the two group of respondents indicated 69.6% (yes) for the Academic staff and 73.6(yes) for the Senior Administrative staff, all above the out-off point of 50% (yes) which is the acceptable level for utilization. Hence, High Extent (HE) of utilization.

Research Question 5: To What Extent are ICT Resources Utilized in General Administration?

Table 5: Frequencies and Percentages of the Respondents on Extent of ICT Resources Utilization in General Administration

		Academic Staff. N=125			**Senior Admin staff. N=150**		
S/N	**Items**	**Freq yes %**	**Freq. No %**	**Decision**	**Freq Yes %**	**Freq. No %**	**Decision**
21	Using ICT Resources for day-to-day administration e.g keeping electronic attendance register and e-circular	31.2	68.8	LE	27.3	72.7	LE
22	Using ICT Resources for meeting proceedings e.g Council and senate meetings	78.4	21.6	HE	80.7	19.3	HE
23	Using ICT Resources for	36.8	63.2	LE	31.3	68.7	LE

	Academic planning						
24	Using ICT Resources for physical planning	34.4	65.6	LE	33.3	66.7	LE
25	Using ICT Resources for inventory management	21.6	78.4	LE	18.7	81.3	LE
26	Using ICT Resources for library management	17.6	82.4	LE	29.3	70.7	LE
27	Using ICT Resources for information and public relations to showcase the university	89.6	10.4	HE	91.3	8.7	HE
28	Using ICT Resources for medical records	3.2	96.8	LE	12.7	87.3	LE
29	Using ICT Resources for management of works and transport services	2.4	97.6	LE	10.7	89.3	LE
30	Using ICT Resources for management of database of the university	4.8	95.2	LE	26.7	73.3	LE
	Cluster %	**32.0**	**68.0**	**LE**	**36.2**	**63.8**	**LE**

Table 5 revealed that ICT resources are not utilized in General Administration of the university. These are shown in items 21, 23, 24, 25, 26, 28, 29 and 30. These concern: keeping electronic attendance Register and e-circular, academic planning, physical planning, inventory management, library management, keeping medical records, management of works and transport services, and management of database of the university. On the other hand, ICT Resources are used for meeting procedures, item 22; and for information and public relations to showcase the university, item 27. The cluster percentage of the two group of respondents showed 32% (yes) for the Academic staff and 36.2% (yes) for the Senior Administrative staff, all below the 50% benchmark which is the acceptable level for utilization.

Discussion

The findings of the study on research question I, table I revealed that the two group of respondents namely: Academic staff and Senior Administrative staff affirmed that ICT resources are not used in Staff Personnel Administration. The cluster percentage for the academic staff is 21.6% while that of the Senior Administrative staff is 18%, all below the cut-off point of 50% which is the acceptable level for utilization. This clearly indicates that the ICT resources are utilized to a low extent (LE). This finding agrees with Zunaib and Muhammad (2016) that ICT resources are lowly utilized in university administration and that the people are using more manual system than electronic. It also resonates with Nwana, Ofoegbu and Egbe (2017) that majority of the ICT resources are not utilized in secondary education in Nigeria.

For Research question 2, table 2, it was found that ICT resources are not utilized in students personnel administration. The cluster percentage for the two group of respondents are as follows: Academic staff 40% and Senior Administrative Staff, 45.2%, all less than the cut-off point of 50%w which is the acceptable level for utilization. This indicates that ICT resources are utilized to a low extent (LE). This finding collaborates with Poor (2008) that ICTs have low level of utilization in students administration.

Research question3, table 3 as presented revealss that ICT resources are not utilized in Academic Administration. The cluster percentage for the Academic Staff is 17.6% and that of the Senior Administrative staff is 20.8%, all below the benchmark of 50% which is the acceptable level for utilization. This shows that ICT resources are utilized to a low extent (LE). This finding is consistent with Sarka (2012) and Nwana (2012) that the usage of ICT resources is lowly felt in the academic parlance. The findings is similar to Nwana, Egbe and Ugwuda (2017) that there is low level of usage of e-learning materials among the students of National Open University of Nigeria (NOUN).

Research question 4, table 4 reveals that ICT resources are used in financial Administration to a high extent (HE). The cluster percentage for the Academic staff is 69.6% while that of the Senior Administrative staff is 73.6%, all above the cu-off point of 50% which is the acceptable level for utilization. This finding on high extent of utilization in financial accounting is in consonance with OECD(2005) that ICT has more impact in accounts-related administration than on teaching and learning. The finding also supports that of Ahmad (2009) that ICT is used for fee payments and account details.

The result for research question 5, table 5 shows that ICT resources are not utilized in General administration. The cluster percentage for the Academic staff is 32% and that of the Senior Administrative staff is 36.2%, all below the benchmark of 50% which is the acceptable level for utilization. This indicates that ICT resources are utilized to a low

extent (LE). This finding agrees with Zuhaib and Muhammad (2016) that ICT was not found effective in General administration. The finding is also consistent with Krishnaveni and Meenakumari (2010) that ICT resources have low level of utilization in general administration.

Conclusion

ICT stands for information and Communication Technology. It is a booming electronic technology which has permeated every sector of the society namely: commerce, industry, health and education. In the university, it has influenced administrative services and management of records in the following areas: staff personnel administration, students' personnel administration, Academic, financial and general administration.

It was found that ICT Resources are lowly utilized in various areas of administration; and highly utilized in financial administration or accounts-related areas namely: students' fee payment, staff payroll, payment of salaries and honoraria. Other areas of noticeable ICT usage are: online application for admission/filling of admission forms; online admission, online registration, keeping admission records, keeping records of students industrial work experience services (SIWES), forwarding of students semester results, recording of meeting proceedings and for information and public relations to showcase the university.

Recommendations

The following recommendations were made based on findings:

1. The university authority should procure adequate quantities of ICT resources for effective running of the university administration.
2. The Administrative staff should be trained on the use of ICT resources through short-term courses and on-the-job training in order to jettison the use of manual/analogue devices in record management.
3. The Academic staff should be trained on the use of ICT resources through workshops, seminars and conferences for effective ICT utilization.
4. The university should have standby generators and UPS devices for regular supply of electricity in order to shun epileptic power supply which frustrates the use of ICT resources.

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