

Perceived Influence of Information and Communications Technology on the Management of Public Universities in Makurdi Metropolis of Benue State, Nigeria

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Abstract

The study investigated the perceived influence of Information and Communications Technology on the management of public universities in Makurdi metropolis of Benue State, Nigeria. Descriptive survey research design was adopted for the study, which had two research questions. A total of 1,756 administrative staff from the Joseph Sarwuan Tarka University and Rev. Father Moses Orshio Adasu University Makurdi, constituted the population of the study. Using accidental sampling technique, the sample size was 398 respondents drawn from the population. A self-structured questionnaire was used in the collection of data. The instrument was validated by three experts. A trial test was conducted using 30 staff members of Nasarawa State University, Keffi; using Cronbach Alpha, it yielded a reliability coefficient of 0.87. The data generated were analyzed using mean scores and standard deviation to answer the research questions. The findings of the study indicated that ICT is perceived to have influence on communication and records keeping in public universities. The paper recommended, among others, that government should make funds available to public universities to procure ICT equipment to facilitate communication.

Keywords: information, communication, technology, management, universities.

Introduction

The world today is witnessing rapid transformation in all facets of humanity, especially education. Education as a critical sector in any country that yearns for development cannot be left behind, if such a country wants to witness accelerated development in other sectors of its economy. The increasing demand for education in Nigeria and Benue state in particular places high demand on educational institutions, especially the universities, to move along with ICT for efficiency. ICT revolution has tremendous implications for

education. The efficient attainment of education goals in the university system seems to be greatly tied to the use of ICT. In this technology-driven age, every system, especially universities, need ICT competence to survive. This is the most reason why universities are finding it very necessary to explore the use of ICT in enhancing communication and proper record keeping. The use of ICT in enhancing communication between university administration and staff as well as efficient record keeping has become essential part of education management for timely achievement of university goals and objectives (Adeyemi & Olaleye, 2020). Adeyemo (2010) also maintains that most forms of communication used by faculties to facilitate interactions with students include the use of e-mail and online discussion boards.

The goals of tertiary education, according to the National Policy on Education (FRN, 2013) include: (a) contribute to national development through high level manpower training; (b) provide accessible and affordable quality learning opportunities in formal and informal education in response to the needs and interests of all Nigerians; (c) provide high quality career counselling and life-long learning programmes that prepare students with the knowledge and skills for self-reliance and the world of work; (d) reduce skill shortages through the production of skilled manpower relevant to the needs of the labour market; (e) promote and encourage scholarship, entrepreneurship and community service; (f) forge and cement national unity and (g) promote national and international understanding and interaction. The attainment of these objectives by the universities requires the use of ICT. ICT has reduced the operations of organizations to a click of buttons. Its application in the management of universities would do a great deal in reducing or eliminating the gaps that exist among departments, faculties and the university administration in general (Osun, 2020).

Information and Communications Technology (ICT) refers to all that is involved in information gathering and processing using modern communication technologies such as computers, and other related equipment so that the services generated can reach all that desire them at reasonable cost and in good time (Adikwu, 2019). Njoku (2016) on the other hand consider ICT in the context of education as the combination of technologies for collecting, storing, processing, communicating and delivery of information related to teaching and learning processes.

The management of universities from the above expositions has been undoubtedly affected by ICT in areas of teaching, learning, management and research. For the two public

universities in Makurdi Metropolis, namely Joseph Sarwuan Tarka University, Makurdi and Rev. Father Moses Orshio Adasu University, Makurdi, to live up to their expectations, ICT usage becomes imperative. Improved university management is vital to the creation of effective human capital (Adamu, 2022). Hence universities are citadels of learning, effective communication and proper record keeping becomes essential for efficient coordination, implementation of programmes and management of resources.

Management implies the proper use of human and material resources in achieving set goals and objectives (Basha, 2020). Recent studies have indicated that the use of ICT in educational institutions has improved tremendously leading to attainment of goals and objectives. The use of ICT in communication and record keeping has become paramount in efficient management of the universities. What seems to be a matter of concern is whether the two public universities in Makurdi metropolis have deployed ICT in the areas of record keeping and communication.

Communication, which is the livewire of any human organization, has been made easier by the deployment of ICT. Okebukola (2016) states that administrative functions in schools are becoming increasingly complex in terms of enrolments, population, mobility and social problems. The complexity requires the use of powerful administrative tools resulting in better communication. The ability to use computers efficiently has become an integral part of school management. Timothy (2015) asserts that computer as an electronic machine is capable of manipulating data by performing prescribed operations and supplying the results. Internet or online instruction is another electronic device or ICT. Kombo (2020) considers internet as a collection of computers operating in the same protocol where files are shared through interconnected computers and its accessories. The internet is advantageous in almost every sphere of life especially in education. Internet, according to Anosike (2023), is informative, educative, entertaining and improves commercial transactions and many more. Heads of universities, faculties and departments can communicate with the necessary units in a bid to manage schools at affordable rate. Adams (2019) opines that communication is done when mails are exchanged using the internet. With e-mail facilities, universities can transmit messages and receive reply instantly (Eyo, 2015). This allows the university leadership to make better decisions in performing various tasks (Timothy, 2015). Electronic mail, most commonly referred to as email, is an important communication service available on the internet. The concept of sending letters or memos physically predates the creation of internet (Ogunlade, 2021). Emails can be copied to multiple email addresses in the university. The most common forms of communication used by faculties to facilitate

interaction with students include the use of email, online discussion boards, chat or instant messaging.

Today's email systems are based on a store-and-forward model. Email services accept, forward, deliver and store messages. Neither the users nor their computers are required to be online simultaneously; they need to connect briefly, typically to an email server for as long as it takes to send or receive messages. It is reasonable to state that e-mail will continue to be used with greater frequency in universities to support interactions among staff as well as units within the system (Bright, 2021).

The influence of ICT can also be seen on record keeping in the university system. The evolution of the computer and its capability to handle diverse kinds of problems has made easy the mounting challenges created by the staggering development in tertiary institutions (Adeyemi & Olayele, 2020). The use of ICT has become necessary in the areas of budgeting, collection of student data, recording of results and effective keeping of school records. Data of various types could be programmed into the computer. Data on staff, teaching and learning could also be done through the effective use of ICT. The emergence of ICT in the management of education has become a leverage in providing effective solutions to educational problems that would have been difficult, if not impossible to solve through human natural efforts.

Commenting on the relevance of data in the educational system, Mutama (2018) asserts that effective record keeping is vital to educational development and referencing. The author further argues that it will be an impossible task to plan and administer any instruction to achieve its goals and objectives without proper records keeping through the use of ICT. Consequently, the universities need to have adequate and accurate data on staff, student enrolment, school facilities, finances, retirements, deaths and all other areas that are vital for effective planning and management of schools. There is no doubt therefore that tertiary education has become more complex and hence its management demands the integration of ICT. Ajio (2017) argues that the enormous rise in the number of students in schools as well as the multiplicity of programmes have made school managers to handle large quantity of data which they must process speedily for efficient management of schools. Akinsolu (2006) in a study revealed that good records keeping serve as a basis for effective operation of schools' administrative tasks.

It is imperative to mention that efficient communication in universities and proper record keeping is tied to the use of ICT. Recent studies have shown that despite the efficiency of ICT in communication and record keeping, the two public universities in Makurdi metropolis of Benue State still grapple with the issue of efficient communication and proper record keeping. Furthermore, even in places where ICT facilities exist, they are inadequate to provide efficient services. It is therefore imperative to conduct further exploration and research to better understand the perceived influence of Information and Communications Technology (ICT) on the management of public universities in Makurdi metropolis of Benue State, Nigeria.

Statement of the problem

The enormous increase in students' enrolment, personnel data and other administrative processes in the universities require the use of sophisticated equipment and facilities such as ICT, for speedy processing of data and prompt administration of management functions. The problems of educational institutions can be found in every facet of the system especially in the area of storage of information and method of communication. The advent of Information and Communication Technology (ICT) has however, helped to resolve the problems and make work easier through the use of computers, internet, e-mail, electronic bulletin and many others. Universities as citadels of learning of the country are not expected to be out of this wave of change. They are supposed to exploit the potentials of information and communication technology to transform the educational landscape. Modern technology has shifted from the use of paper in communication to electronics thereby making staff of institutions like the university to perform various tasks faster and better. The obvious advantage of ICT use in terms of efficiency and effectiveness has led to the wide utilization of electronic technologies for operations and management of school organizations. Heads of units, departments and faculties in their universities deal with information for school management and decision-making. Therefore, the need for rapid and timely usage of information and communication technology in the system requires no emphasis. Every day, school leadership is involved in intense face-to-face communication, thus, important decisions must be made quickly through the use of modern information technologies to support communication, record keeping and a wide range of other managerial functions.

The researchers have however observed that two public universities under study still use paper in communication and information storage. They are still using paper to communicate instead of emails and storage of information in computers. Many of the units, departments and faculties do not have computers and other telecommunication technology available. It is also observed that many administrators are not used to sending and receiving messages,

as such many of the messages are delayed. The universities management are not used to ICT in the management of the institutions despite its propensity in achieving high degree of accuracy, timeless precision and minimization in resource wastage. The problem of this study puts in question form therefore is: what influence will the application of information and communications technology (ICT) have on the management of public universities in Makurdi metropolis of Benue State, Nigeria.

Research questions

1. What is the perceived influence of Information and Communications Technology (ICT) on communication in public universities in Makurdi metropolis of Benue State?
2. What is the perceived influence of ICT on record keeping in public universities in Makurdi metropolis of Benue State?

Methodology

The study adopted descriptive survey research design. The population of the study comprised of 1,756 administrative staff members of the two public universities. Using Taro-Yamane formula for sample size determination of a given population of study, the sample of the study was 398. Two research questions guided the study. The study employed accidental sampling technique.

The instrument for data collection was a self-structured questionnaire consisting of two sections. Section A which contained instructions for the respondents and section B which contained five questionnaire items on influence of ICT on communication and five items on record keeping. A 4-point rating scale response mode of strongly agree (4), agree (3), disagree (2), strongly disagree (1) was used. The instrument was validated by three experts, two from Department of Educational Administration and Planning and one from Measurement and Evaluation, all of Joseph Sarwuan Tarka University, Makurdi. To establish the reliability, the instrument was trial tested using 30 staff members of Nasarawa State University, Keffi; using Cronbach alpha, it yielded a reliability of 0.87.

The questionnaire was administered on 398 respondents with the aid of two research assistants. Data generated was analyzed using mean score and standard deviation to answer the research questions. And the response was dichotomously scored which means high and low; 2.50 and above is equal to strongly agree and agree, while 2.49 and below is equal to strongly disagree and disagree.

Presentation of results

Research question 1: What is the perceived influence of Information and Communications Technology on communication in public universities in Makurdi metropolis of Benue State?

Table 1: Mean scores and standard deviation on perceived influence of ICT on communication in public universities in Makurdi metropolis of Benue State

S/N	Descriptions	SA	A	D	SD	\bar{x}	SD	Decision
1	E-mail helps in sending university correspondence faster	103	163	69	13	2.71	0.96	Accepted
2	e-mail makes communication within departments easier	163	130	81	64	2.84	0.99	Accepted
3	The use of email helps the university in taking decisions about staff and students affairs faster	102	137	90	69	2.64	0.91	Accepted
4	The use of email makes communication with parents faster	116	113	110	59	2.62	0.93	Accepted
5	The use of e-mail in school management saves time and stress	101	166	37	94	2.57	0.99	Accepted
	Cluster mean and standard deviation					2.68	0.95	Accepted

Table 1 shows the mean ratings of items 1-5 as 2.71, 2.84, 2.64, 2.62, 2.57 with corresponding standard deviations of 0.96, 0.99, 0.91, 0.93 and 0.99 respectively. Based on the cut-off point of 2.50, the respondents have agreed that: e-mail helps in sending university correspondence faster, email makes communication within departments easier, the use of e-mail helps the university in taking decisions about staff and students affairs faster, the use of e-mail makes communication with parents faster and the use of e-mail in school management saves time and stress. The cluster mean of 2.68 with the corresponding standard deviation of 0.95 is above the criterion mean of 2.50. This means that ICT is

perceived to have influence on communication in public universities in Makurdi metropolis of Benue State.

Research question 2: What is the perceived influence of ICT on record keeping in public universities in Makurdi metropolis of Benue State?

Table 2: Mean and standard deviation on perceived influence of ICT on records-keeping in public universities in Makurdi metropolis of Benue State.

S/N	Description	SA	A	D	SD	\bar{x}	SD	Decision
6	The use of computer allows multiple storage of information	89	124	93	92	2.63	0.98	Accepted
7	University classified documents are stored and easily retrieved through ICT facilities	105	146	75	72	2.68	0.91	Accepted
8	The university database serves as a data bank for university source of information	117	144	70	67	2.51	0.85	Accepted
9	Students' performances are stored with the use of computers	125	129	91	53	2.80	0.89	Accepted
10	Information stored in the internet is safe and secured and does not consume space as in the case of drawer system	129	139	60	70	2.53	0.88	Accepted
	Cluster mean and standard deviation					2.63	0.90	

Table 2 indicates the mean ratings of items 6-10 as 2.63, 2.68, 2.51, 2.80 and 2.53 with corresponding standard deviation scores of 0.98, 0.91, 0.85, 0.89 and 0.88 respectively. The cluster mean of 2.63 with corresponding standard deviation of 0.90 is above the cut-off point

of 2.50. This means that ICT is perceived to have influence on records keeping in public universities in Makurdi metropolis of Benue State.

Discussion of the findings

The first finding of the study revealed that ICT is perceived to have influence on communication in public universities in Makurdi metropolis of Benue State. This finding agrees with Adeyemo (2010), who stated that most forms of communication used by faculties to facilitate interactions with students include the use of e-mail and online discussion boards. The finding also agrees with Okebukola (2016) who maintains that administrative functions in schools are becoming increasingly complex in terms of enrolments, population, mobility and social problems that require the use of powerful administrative tools like the ICT, resulting in better communication.

The second finding of the study revealed that ICT has influence on records-keeping in public universities in Makurdi metropolis of Benue State. This finding gives credence to Adeyemi and Olaleye (2020) who maintain that the evolution of the computer and its capability to handle diverse kinds of problems has made easy the mounting challenges created by the staggering development in tertiary institutions. The finding is also in consonance with Mutama (2018) that effective record keeping is vital to educational development and referencing and it will be an impossible task to plan and administer any instruction to achieve its goals and objectives without proper records keeping through the use of ICT.

Conclusion

Based on the findings of the study, it can be concluded that Information and Communications Technology (ICT) is sacrosanct in the efficient management of universities. It has been found to be efficient in communication between university management and staff, among departments, units and faculties. It has also been found to be efficient in records keeping most especially now that universities are grappling with enormous students' enrolment, staff data and other staggering records in the university system. It is plausible to conclude that ICT has influence on communication and records keeping in public universities.

Recommendations

On the basis of the outcome of the study, the following recommendations were made:

1. Government should make funds available to the public universities to procure and install ICT equipment in the universities to facilitate communication in the system.

2. Adequate funds should be provided by the government to universities to procure computers and other ICT storage facilities for proper record keeping.

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