

An Appraisal of Knowledge and uses of ICTS among Residents of Kaduna Urban of Kaduna State and Jos Capital of Plateau State

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ABSTRACT

This study is set out to empirically determine the knowledge and uses of ICTs among residents of Kaduna Urban of Kaduna State and Jos metropolis of Plateau State. The study was anchored on the Diffusion of Innovation Theory. Survey method was used and structured questionnaire administered on sample population of 600 respondents. The findings show low knowledge and uses of ICTs Kaduna Urban and Jos metropolis. The study recommends compulsory ICTs and computer studies at all levels of educational institutions in the area in order to enhance ICTs penetration and application.

Keywords: Knowledge, ICTs, residents, Kaduna, urban, state, Jos and Plateau.

INTRODUCTION

The rapid development of ICTs since the birth of computers and the Internet has contributed so much in changing the way we live our daily life. They affect the way we do things, which includes the way we do our jobs. They even affect the way we relate to one another in terms of personal relationships, as well as professional ones. Almost everything we do in daily basis has something to do with ICTs. It ranges from simple stand-alone applications to collaborative and networked systems. Nowadays it's almost unimaginable to write an article without the help of the word processor application, online dictionary or thesaurus, reference management application, and online journal database. Some ICTs, however can cause fundamental changes in the traditional roles and functions of certain professionals.

The invention of facilities such as the computer, Internet, GSM and satellite, has enhanced speed, quality, quantity, efficiency and accuracy of transmission and

distribution of information across borders. The ICTs also aid good governance, thereby facilitating and expanding development.

In the words of Nworgu (2008)[1], "Information and Communication Technologies (ICTs) are perhaps the most recent gift and blessing to humanity". Ibenta (2004), believes that "though the creation and diffusion of technological knowledge is at the heart of modern economic growth, yet, the questions concerning who will benefit and who will be left out of the ICTs revolution are gradually coming to the fore in policy debates".

Globalization, which is a term used to describe how the world has been reduced to a very small unit, popularly referred to as "global village," is made possible through the giant strides in the development on information and communication technologies, [2].

Today, by just pressing a button, a person can stay in his house and access information, entertainment or events in any part of the world.

But according to Osuala (2005)[3]:

ICTs diffusion into Africa is still at a snail's speed; such that the gap between the information rich developed countries and African countries continues to increase everyday---.Africa has 14% of the world population but only 5% of the world telephone lines and 3% internet connectivity. Consequently, most African countries including Nigeria have not been able to reap the abundant benefits of the global information revolution in all areas of life.

Eze (2007)[4] presents what appears a more worrisome argument as it concerns ICTs diffusion in Africa. According to him, "even within the African continent, there is now a digital divide between Southern Africa, Eastern Africa, North Africa and West Africa". He adds that "as long as there remains a lukewarm attitude towards the

adoption of ICTs by developing countries, especially in Africa, they will continue to lag behind in both human and material development”.

In Nigeria, the use of ICTs includes photocopying, fax, payphone, GSM, the computer, Internet, Cable and satellite televisions, etc, but these are in the cities and the use is still elitist and yet hampered by poor electricity services. In the rural areas there are very few tele-centres.

However, because of the importance of ICTs in national development, one is not concerned with their adoption only, but also with their penetration. This is why this study was deemed necessary and timely, with interest in Kaduna urban of Kaduna State and Jos metropolis, capital of Plateau State.

STATEMENT OF PROBLEM

Information and Communication Technologies (ICTs) have brought significant changes in all spheres of human life. In business, politics, education, agriculture, health, sports, etc, ICTs have become the pivot of progress. But whereas the well industrialized societies have recognized the essentialism of ICTs and benefit profusely from their communicative and directive development opportunities, this cannot be said of the less developed societies.

According to Nwodu (2006)[5]:

We live in a global village where ICTs have direct impact on a nation's ability to compete globally; we must, therefore, ask ourselves how we have fared in comparison with other nations of the world in providing access to these vital infrastructure, for our people....While countries like Sweden boasts of about 100% access, Nigeria's figure is at a level of less than seven percent. Even in the African continent, we are still far behind countries like Egypt, South Africa,

Botswana, etc....Nigeria remains behind in the international development index as far as ICTs penetration and usage is concerned.

This study, therefore, examines ICTs awareness of residents of Kaduna urban of Kaduna State and Jos metropolis of Plateau State.

RESEARCH QUESTIONS

1. Do the residents of Kaduna urban of Kaduna State and Jos metropolis of Plateau State have the knowledge of ICTs?
2. What is the level of knowledge of ICTs among the residents of Kaduna urban of Kaduna State and Jos metropolis of Plateau State?
3. What factors are responsible for the present level of knowledge of ICTs among the residents of Kaduna urban of Kaduna State and Jos metropolis of Plateau State?
4. Does the present level of ICTs knowledge and use have any serious implications on the quality of life of the people?
5. What practical measures could be taken to enhance the resident of Kaduna urban of Kaduna State and Jos metropolis of Plateau State?

OBJECTIVES OF THE STUDY

The overall objective of the study is to ascertain the knowledge and use of ICTs among residents of Kaduna metropolis of Kaduna State and Jos metropolis of Plateau State. Specifically, the study is meant to:

1. Determine the extent to which the residents of Kaduna urban of Kaduna State and Jos metropolis of Plateau State know about and use of ICTs
2. To examine the level of knowledge of ICTs among the Kaduna urban residents and Jos metropolis of Plateau State.
3. Identify the probable factors responsible for the present level of knowledge of ICTs among the resident of Kaduna urban of Kaduna State and Jos metropolis of Plateau State

4. Discover the likely implications and,
5. Suggest how to enhance the knowledge and use of ICTs among the residents of Kaduna urban of Kaduna state and Jos metropolis of Plateau State.

SIGNIFICANCE OF THE STUDY

Undertaken study a time when every society is making serious efforts to tap from the numerous opportunities afforded by the breakthroughs in information and communication technologies (ICTs), it will not be an overstatement to say that the study will be a source of insight to policy-makers, government's analysis. It will also benefit media practitioners and managers, media educators, scholars as well as communication students. It is indeed, a contribution to knowledge and overall societal and national development.

KEYWORDS: KNOWLEDGE, INFORMATION COMMUNICATION TECHNOLOGY (ICTS)

Oxford Advanced Learner's Dictionary, seventh edition, defines knowledge "as information, understanding, skills one gains through education or experience". It also means knowing that something exists and is important. In the context of our study, it simply means knowing and understanding how to use the ICTs.

The word "ICTs" on the other hand, stands for Information Communication Technologies. They include the computers, Internet, GSM and Satellite, all of which are electronic equipment for instant information sourcing, application, storage and transfer.

LITERATURE REVIEW

According to Nwodu (2006)[5] ICT is technology that supports activities involving information. Such activities include gathering, processing, storing and presenting data. Increasingly these activities also involve collaboration and communication. Hence IT has become ICT: Information and Communication Technology.

Technology does not exist in isolation ICT contributes at various points along a line of activity ICT is used in activities – the ICT use depends on the activities The key outputs of educational activities are context are knowledge, experience and products. The output should be useful to the users (self and others).

Eze (2007)[4] notes that Information and Communications Technology (ICT) is an extended term for Information Technology (IT) which stresses the role of unified communications and the integration of telecommunications (telephone lines and wireless signals), computers as well as necessary enterprise software, middleware, storage, and audio-visual systems, which enable users to access, store, transmit, and manipulate information.

The term ICT is also used to refer to the convergence of audio-visual and telephone networks with computer networks through a single cabling or link system. There are large economic incentives (huge cost savings due to elimination of the telephone network) to merge the telephone network with the computer network system using a single unified system of cabling, signal distribution and management.

ICT is not just a device, rather an umbrella word that covers all the devices that carries out the aforementioned functions as stated by the above Scholars. Furthermore, ICT can also be referred to as a soft ware and as well as hardwares that carryout the aforementioned functions.

However, ICT has no universal definition, as "the concepts, methods and applications involved in ICT are constantly evolving on an almost daily basis." The broadness of ICT covers any product that will store, retrieve, manipulate, transmit or receive information electronically in a digital form, e.g. personal computers, digital television, email, robots. For clarity, Zuppo provides an ICT hierarchy where all levels of the hierarchy "contain some degree of commonality in that they are related to technologies that facilitate the transfer of information and various types of

electronically mediated communications." Skills Framework for the Information Age is one of many models for describing and managing competencies for ICT professionals for the 21st century[2].

Osuala (1993)[3] likens ICT to a utility like water and electricity which plays a major role in education and has impacted on the quality and quantity of teaching and learning as well as research in educational methodology to initiate a new age in education. Internet as a digital tool of ICT has strengthened teaching and learning as it provides powerful resources and services for students, thereby enabling them meet their educational needs, it also allows for networking among students and teachers to facilitate exchange of ideas and improve opportunities for connecting schools to the world as learning is expanding beyond the classroom, so real life context can be established [1]

ICT is a companion to the twenty first century man, an invited guest to every human endeavour because it is usually manipulated unconsciously or consciously by the twenty first century man in all his field of endeavours because a digital alternative is always sought for in way of doing things in the present dispensation.

A ground breaking achievement of the twenty first century is the invention of the Internet. The word "the world is a global village" was made a reality by the invention of the Internet, it has revolutionalized all ways of doing things by removing national boundary and narrow distance to just a clique of the bottom away.

Osuala 1993; Eze 2007; Nwodu (2006)[3],[4],[5] defines the internet as the inter connection of system of subsystems of equipment that is used in the automatic acquisition, storage, manipulation, management, movement, control, display, switching, interchange, transmission or reception of data or information. Dickson (2012) noted that the internet can be seen to provide resources and services that are used for accessing, processing, gathering, manipulation and presenting or communicating

information. The use of internet in education is now growing in all parts of the world and their application is becoming an integral part of education in many parts of the globe. Osuala 1993; Eze 2007;[3],[4] indicated that most developed countries have exploited the potential of internet to transform their education landscape.

Nigeria as a country is yet to make available and use ICTs to transform its' educational system. Nwodu (2006)[5] indicates the benefits of internet use in education, and also found positive and moderately high achievement at all educational level, from computer use in school subjects, which allows students to focus on strategies and interpretation of answers rather than spend time on tedious computational calculation. It is then generally believed that the use of internet in the educational sector in a developing nation like Nigeria would help bridge the information barrier between developed and developing nations.

Information and Communication Technology (ICT) plays a vital role in the development of any nation. It has been an instrument for achieving social, economic, educational, scientific and technological development Nwodu (2006)[5]. ICT has greatly influenced the educational sector especially on teaching, learning and research.

The application of Information Communication Technology (ICT) is not only emphasised in corporative business and the industrial sector, but also in essential part of education at all levels Eze (2007)[4]. ICT, including computers, is generally believed to foster cooperative learning, provide more information and, through simulation, make complex learning experiences easier to understand. Therefore, the use of ICT cannot be ignored either by teachers or by students. This sentiment is stressed by Westhuizen (2004) who points out that, in relation to the use of ICT for learning, technology holds a promise of improved access to information and increased interactivity and communication between person to persons.

Information and Communication Technology (ICT) encompasses the effective use of equipment and programs to access, retrieve, convert, store, organize, manipulate and present data and information Eze (2007)[4] learning, which is described as the use of ICT to enhance or support learning and teaching in education, has become increasingly important in tertiary education Nwodu (2006)[5]. Information and Communication Technology (ICT) and information technology (IT) can be used interchangeably. Information can be seen as "idea" conceived in the human mind, while communication is the transfer of that information from the original source to the destination where it is needed with the intention to producing a change in behaviour of the receiver [1],[2].

When information and communication drifts away from the orthodox verbal and print media towards the more recent electronic media then the concept is known as ICT. This is why Baran (2002)[2] defines "ICT" as the science and activity of processing, storing and sending information by using computers. She further defines Communication Technology as the use of hardware and software to enhance communication. In other words, there is an overlap between the function of Information Technology and Communication Technology. According to Baran (2002)[2] it is due to this great similarity in the function of "IT" and "CT" that the two became fused into ICT. ICT, therefore, is the means of accessing or receiving, storing, transferring, processing and sending ideas, perception or information through computers and other communication facilities.

The teaching-learning process is inevitably involved in information passage from the teacher (sender) to the learner (receiver) and vice versa on a regular basis. This has been done over the years in communication and to the most recent electronic communication[5].

THEORETICAL FRAMEWORK

This work is based on the Diffusion of Innovation theory. The Theory according to Baran (2002)[2], is associated with Nworgu (2008)[1]. The concept, innovation, as later defined by Osuala 1993)[3] is “an idea, practice or object perceived as new by an individual”. Scholars argue that the newness here does not presuppose that such “idea, practice or object” is entirely novel to members of a social group. It rather means that though members of the target group may be aware of such ideas, practice or object, but they have no particular disposition towards the idea, practice or object prior to the launch of the campaign for social change.

Eze (2007)[4] puts it this way:

The innovation Diffusion Theory refers to how technological products and facilities are introduced and adopted by the international community, comprising external broadcasting service stations, using technological products to reach out the world and the international audience who are the beneficiary of the new media contents and products.

This submission rightly buttresses the suitability of the theory to the objective of the study, which is to evaluate the objective of the study, which is to evaluate the awareness, adoption and usage of ICTs among selected residents of Kaduna urban in Kaduna and Jos metropolis of Plateau State.

APPRAISING ICTS AWARENESS AND GROWTH IN AFRICA

Globalization in its wake has brought about a tremendous change in information revolution. The revolution is affecting nearly all economies, and creating tremendous challenges and opportunities in national development. This is because there is a linkage between the use of ICTs and national development. Consequently, this implies that countries that do not apply the new ICTs in national development are retarded, and this is the major problem of national development in several Third World countries. This is

in agreement with the observations of Eze (2007)[4] that “Nigerians and indeed Sub-Saharan Africans are still spectators in the ICTs world”.

According to Eze (2007)[4], “Sub-Sahara Africa currently has the least developed communication networks in the world, with almost 12percent of the world’s population, the region has only 1.5 percent of all the telephone lines”.

Eze (2007)[4], also points out that the cost of phone connection in most of the African countries was about 25 percent of the country’s GDP in 2005. He concludes that “as long as there remains a lukewarm attitude towards the adoption of ICTs by developing countries, especially in Africa, they will continue to lag behind in both human and material development”.

In Nigeria, Uweja, cited in Nwodu (2006)[5], observes that “ICTs are still at low ebb in Nigeria, and there is a serious and fundamental need to refocus the nation’s information mindset from the current standard of who you know to what you know”.

Such a situation in Sub-Sahara Africa and particularly in Nigeria, makes it imperative to study ICTs awareness and use in Nigerian cities, especially Kaduna and Jos metropolis.

RESEARCH METHOD AND DESIGN

The research used survey method. According to Nwodu (2006)[5], survey refers to works on the premise that a given population is too large for any researcher to realistically observe all the elements therein. Survey method was, therefore, considered appropriate for this study because studying all the residents of Kaduna urban of Kaduna State and Jos metropolis of Plateau State was practically impossible. Hence, selection of samples became necessary.

Kaduna urban was grouped into strata of the following zones; Tudun Wada zone, Kawo zones, Magaji- Gari zone, Barnawa zones, Sabo zones, Kakuri zones. From information made available to the researchers, the population of the six zones is

estimated at seven hundred (700), out of which 350 respondents representing 5% was purposefully taken as the sample size.

In the same way, for Jos, the six zones mapped out were: Zawan zone, Gyale zone. Rayfield zones. Gada-Biu zones, Lamigo zones, Tudun-Wada ring road zone. The six zones from them respectively had an approximated population of 700 out of which we got 350 respondents or 5%. Purpose sampling was also applied.

The structured questionnaire was pre-tested on the population. Copies of the questionnaire were self administered with the aid of an assistant and finally, out of 700 distributed, 690, representing 99% were returned, and a total of 10 questionnaires were not returned. Data presentation and analysis were based on frequency tables using simple percentages.

DATA PRESENTATION AND ANALYSIS

This section presents the responses to the questions posed to the respondents with explanatory notes for the purpose of proper understanding of the findings and the portable implications. The process of the questionnaire collation involved the use of coding guide and coding sheets, and the conversion of the data into percentages to facilitate statistical interpretations. Five tables which represent the research questions are with the vital statistics shown below:

DEMOGRAPHIC INFORMATION

Table 1: Gender

Response Categories	Frequency	Percentage
Male	410	59.4
Female	280	40.6
Total	690	100

Source: Field survey, December, 2016

The table above shows that 59.4% (410) of the respondents are males, while 40.6% (280) were females. This means that majority of the respondents are males.

Table 2: Age Distribution of Respondents

Response Categories	Frequency	Percentage
Less than 18yrs	20	2.9
18- 25	85	12.3
26- 30	295	42.8
31- 35	200	29
36 - 40 above	90	13.1
Total	690	100%

Source: Field survey, December, 2016

Table 2 shows that the respondents less than 18 years were 20 representing 2.9%, between the ages of 18 and 25 were 85 representing 12.3%. Those between the ages of 26 and 30 were 295 representing 42.8%. Those between the ages of 31 and 35 were 200 representing 29% while those who were 36years and above were 90 representing 13.1%. This shows that most of the respondents were between the ages of 26-30.

Table 3: Educational Qualification

Educational Qualification	Frequency	Percentage
SSCE	90	13
NCE/DIPLOMA	310	44.9
DEGREE/HND	275	39.9
MASTERS	15	2.2
TOTAL	690	100%

Source: Field survey, December, 2016

Table indicates that 90 of the respondents representing 13% had SSCE. Those that had NCE/Diploma were 310 representing 44.9%. Those that had first Degree/HND were 275 representing 39.9%. Those that had Masters were 15 representing 2.2%. This shows that those that had NCE/DIPLOMA were more than others.

Table 4: Occupation

Response Categories	Frequency	Percentage
Student	333	48.3
Civil Servant	215	31.2
Media Professionals	92	13.3
Others	50	7.2
Total	690	100%

Source: Field survey, December, 2016

Table above show that 333 respondents representing 48.3% are students, while 215 respondents representing 31.2% are Civil Servants, 92 respondents representing 13.3% are Media professionals, while 50 respondents representing 7.2% belong to other professions. This signified that the majority of the respondents are students.

Table 5: Research Question 1

Do the residents of Kaduna urban of Kaduna State and Jos metropolis of Plateau State have the knowledge of ICTs?

Response Categories	Frequency	Percentage
Yes	450	65.2
No	200	29
Not sure	40	5.8
Total	690	100%

Source: Field survey, December, 2016

The above shows that 65.2% (450) of the residents of Kaduna urban of Kaduna State and Jos metropolis of Plateau state have the knowledge of ICTs, while 29% (200) have not the knowledge, and 5.8% (40) were not sure.

Table 6: Research Question 2

What is the knowledge level of ICTs among the residents of Kaduna urban of Kaduna and Jos metropolis of Plateau State?

Response Categories	Frequency	Percentage
High	209	30.3
Low	401	58.1
No comment	80	13.6
Total	690	100%

Source: Field survey, December, 2016

The table shows that 58.1% (401) of the respondents rate low in the knowledge and use of ICTs among the residents of Kaduna urban of Kaduna State and Jos metropolis of Plateau State 30.3% (209) rated it high, while 13.6% (80) declined comments.

Table 7: Research Question 3

What are the likely factors responsible for the present knowledge level of ICTs among the residents of Kaduna urban of Kaduna State and Jos metropolis of Plateau State?

Response Categories	Frequency	Percentage
Poverty	280	40.6
Illiteracy	100	14.5
Lack of infrastructure e.g electricity	89	12.9
High cost of ICTs	101	14.6
Absence of trained ICTs personnel	118	17.1
No comment	2	0.3
Total	690	100%

Source: Field survey, December, 2016

The table above shows that poverty constitute 40.6% (280) of the factors responsible for the present knowledge level of ICTs among residents of Kaduna urban of Kaduna State and Jos metropolis of Plateau State. Illiteracy accounts for 14.5% (100), lack of infrastructure like electricity represents 12.9% (89), high cost of the ICTs constitute 17.1% (101), and absence of trained ICTs personnel represent 17.1% (118), while a total of 0.3% (2) of the respondents declined comments.

Table 8: Research Question 4

Does the present knowledge level or use of ICTs among residents of Kaduna urban of Kaduna State and Jos metropolis of Plateau State have any serious implication on the quality of life of the people?

Response Categories	Frequency	Percentage
Yes	400	58
No	230	33.3
No comment	60	8.7
Total	690	100%

Source: Field survey, December, 2016

The table 4 above shows that 58% (400) of the respondents believe that the current knowledge level or use of ICTs among residents of Kaduna urban of Kaduna State and Jos metropolis of Plateau State has some serious implications on the overall well being of the people. However, 33.3% (230) disagreed and 8.7% (60) declined comment.

Table 9: Research Question 5

What practical measures could be taken to enhance the knowledge and use of ICTs on the residents of Kaduna urban of Kaduna State and Jos metropolis of Plateau State?

Response Categories	Frequency	Percentage
Introduction of compulsory computer courses or subject in primary, secondary and tertiary institutions in the areas?	389	56.4
Government should subsidize the cost of importing and acquiring the ICTs	130	18.8
Government should provide social amenities like electricity and enabling environment for effective operations of ICTs	150	22.9
No comment		

	30	4.3
Total	690	100%

Source: Field survey, December, 2016

The table above shows that 56.4% (389) of the respondents suggested the introduction of compulsory computer courses in all educational institutions in the areas in order to boost the knowledge and use of ICTs among the residents of the areas. But 18.8% (130) called for government subsidy of the cost of computers, 22.9% (150) want government to provide enabling environment to operate the new ICTs, while 4.3% (30) did not respond to the question.

DISCUSSION AND INTERPRETATION OF RESULTS

The general objective of this study was to determine the knowledge and use of ICTs among the residents of Kaduna urban of Kaduna State and Jos metropolis of Plateau State. In eliciting the needed responses, five (5) research questions were raised. Copies of the questionnaires were self-administered to the respondents, collated and analysed for statistical interpretation.

The questions hinged on the demographic and psycho graphics of the respondents. Gender distribution of the respondents shows that the male out-numbered their female by 59.4% (410) against 40.6% (280).

The age distribution of respondents clearly shows their maturity, quality and emotional stability; their occupations and educational qualifications show diversity and specialization, signifying variety of social and economic status, as well as educational level.

Research Question 1 sought to find out the knowledge and use of ICTs among the residents of the area. The findings show that only 65.2% (450) are aware of the ICTs, but only while 29% (200) are computer-literate.

Research Question 2 sought to find out the actual knowledge level of ICTs among the respondents. The result shows a low knowledge level as indicated by 58.1% (401) of the respondents; the reasons as shown in research question 3 were attributed to poverty, 40.6% ;

Illiteracy, 14.5%; lack of infrastructures, 12.9%; high cost of the ICTs, 17.1%; and absence of trained ICTs personnel represent 17.1%.

Furthermore, Research Question 4 reveals a general agreement of negative impact of this low knowledge level of ICTs among the people, has 58%. They enumerated such negative impacts to include underdevelopment of the area, unemployment and poverty, among others.

CONCLUSION

The findings of the study show that the knowledge and uses of ICTs is low among the residents of Kaduna urban of Kaduna State and Jos metropolis of Plateau State and that there is serious need for change because the knowledge and uses of the technologies are at the heart of development.

RECOMMENDATIONS

Based on the findings, the study suggests that the governments of Kaduna State and Plateau State, perhaps, assisted by local governments should ensure:

1. The inclusion of ICTs courses in primary, secondary and higher institutions curricular
2. Conducive learning environment for the ICTs courses in the states
3. Subsidize the cost of importing and acquiring the ICTs in the interest of the citizens of the states.

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