

The role of information communication technology (ICT) in enhancing productivity in local government administration in Benue State, Nigeria

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Key wards

Information Communication Technology, Productivity, Local Government Administration, Role.

Abstract

The rationale for this research survey is to establish the need for the third tier of government to embrace ICT to enhance its performance. The objective of this study is to ascertain the effectiveness of the role of Information Communication Technology (ICT) in enhancing productivity in the local government administration, in Benue State, Nigeria. The researcher adopted a quasi experimental research design technique. The population for this study consisted of all the 23 local governments in Benue State in which 5 employees were judgmentally sample using 5-point Likert scale questionnaire. Pearson chi-square test was employed in testing the two (2) formulated hypothesis. The findings from the research revealed that Information Communication Technology (ICT) have played a positive role in areas of computerization of Internal Accounting, payroll operations, word processing and Budget planning and administration, job costing, scanning documentation and mapping, decision support, online training/learning, urban planning amongst others in the 23 local government areas of Benue State, Nigeria. The study also found that there exist several problems militating against ICT effective applications. These problems include lack of technical skills, acquisition of obsolete equipment, erratic power supply, ineffective regulation amongst others. The research recommended that local government administrators should make further investment in Information Communication Technology (ICT) a top priority as it is proven that it is a catalyst for development in areas of education, health, secretariat administration, proper financial reward keeping, politics, governance, culture, business and production.

1. Introduction

Information needs are escalating. A complex and rapidly changing environment requires that managers, administrators obtain extensive information about competitors, regulators, customers and more on a global basis. Also, empowering employees to improve quality and efficiency requires organizations to disseminate information about internal performance and external demands. At the same time, information overload requires that information be clear and meaningful, or else it may not be perceived at all (Patrick Wright and Raymond Noe, 1996). Information is data that are organized in a meaningful fashion (George and Jones, 2006). According to Griffins (1997) Information Communication Technology (ICT) refers to the resources used by an organization to manage information that it needs to carry out its mission. ICT may consist of computers, computer networks, and other pieces of hardware. In addition, ICT consist of software that facilitates the systems abilities to manage information in a way that is useful to managers, administrators and employees in organization. They are electronic hardware and software used for communications and information processing.

Arokoyo (2008) views ICT as technology used to exchange, process and communicate information and knowledge by electronics ranging from radio and television to telephones (fixed and mobile), computers and internet. ICT can also be described as a new techno-economic paradigm which has experienced the most rapid development and taken the field of micro-

electronics, informatics, data processing and communication into areas of life which only a few years ago were an exclusive preserve of space and advance manufacturing system (Kagbojola, 2004).

Discoveries in microelectronics, information processing and communication technology have no doubt revolutionized the global system (Sani, 2010). There is so much information moving around the world than before. The convergence of computer and communication technologies is promoting the development of computer-mediated networks. These networks are formed by system of computer and communication hardware and software which allow users to communicate and transmit data and other types of information across National boundaries (Sani, 2010).

Agboola (2006) observed that some payments are now being automated and absolute volume of cash transactions are brought about by the adoption of ICT to the payment system both in developed and developing Nations. Emmanuel and Sife (2008) noted that positive effects of ICT have continually been noted in business, production, education, politics, governance, culture and other areas of human endeavour. The above position is reinforced by Agboola (2004) and Ayo (2006) who stated that, the growing rate of ICT particularly the internet has influenced at an exponential rate online interaction and communication among the generality of the populace.

Rao, Metts and Mong (2003) observed that the 1990's witness the proliferation and hyper growth of internet and internet technologies which together are creating a global and cost effective platform for business to communicate and conduct commerce.

The aim of information communication technology is to make organizing and disseminating information faster, easier, and more accurate than before. Many applications of information communication technology are common place today. Databases make it easy to find a particular pieces of information, word-processing programs makes the creation of documents efficient, and electronic mail (e-mail) and computer bulletin boards are fast ways to send and receive messages. Pagers, cellular phones, and laptop and palmtop computers give traveling employees access to information where and when they need it. Computer-integrated manufacturing keeps operations flexible and aligned with strategy as well.

1.1 Characteristics of Useful Information

What factors differentiate information that is useful from information that is not useful? Griffins (1997) noted that, for information to be useful, it must be accurate, timely, complete and relevant.

1.1.1 Accurate: For information to be of real value to an administrator, manager etc, it must be accurate. Accuracy means that the information must provide a valid and reliable reflection of reality. Accuracy and reliability determines the quality of information. The greater the accuracy and reliability the higher the quality of information. For ICT to work well, the information that it provides must be of high quality. This may facilitate good decision by Administrator/managers resulting to good governance.

1.1.2 Timely: Information also needs to be timely. Timeliness does not necessarily mean speediness; it means only that information needs to be available in time for appropriate administrative/managerial action, not after the decision has been made. In today's rapidly changing world, the need for timely information often means that information must be available on a real time basis. Real time information is information that reflects current conditions. Real-time information may need to be updated frequently.

1.1.3 Completeness: Information that is complete gives administrators/managers all the information they need to exercise control, achieve coordination, or make an effective decision.

1.1.4 Relevance: Information that is relevant is useful and suits administrator/managers particular needs and circumstances. Irrelevant information is useless and may actually hurt the performance of a busy personnel who has to spend valuable time determining whether information is relevant.

1.2. Components of Information Communication Technology (ICT)

Information Communication Technology (ICT) according to Cole (2003) is a combination of basic related technologies. These are;

- a. Computers
- b. Telecommunications and electronics.

All these have application in industrial settings, where it is employed for process control, machine control, and for monitoring. However, it is in the office settings that ICT truly comes into its own, for the very reason that offices are above all else, centres of information processing, storage and distribution.

A. **Computer System:** As observed by Woherem (2001), a computer is an electronic device that uses instructions provided to it, which is stores in its memory unit, to accept data input from its peripherals. It processes the data input using its arithmetic and logic processing units, and then produces outputs from its internal processing, while storing the results for use in the future. This definition of a computer include things like *Handhold computers, Palmtops, Notebooks, Personal Digital Assistant (PDAS), Desktops, workstations, minis, mainframe computers as well as supercomputers.*

Computer process data: Data refers to raw facts like numbers, words, images and sounds that are fed to a computer as input. Data is processed to create information. The word information is used to refer to data or sets of data that have been processed and/or manipulated to provide something meaningful and useful. Computer systems are made up of 2 major components for them to carry out their data or information processing function.

The two parts are hardware and software

Computer hardware refers to the physical components of the computer i.e. these aspects of the computer that are physically manipulated. *Computer software* refers to the sets of instructions that are fed into the machine that enable the computer to process data/information.

In order to carryout information processing, a computer needs an *input device*, a processing device, and an *output device*. It also needs a storage device in order to store the data or information it process.

Input devices are the devices used to enter data into a computer. The most commonly used input devices are the *keyboard* and the *mouse*. The keyboard is like the keyboard of typewriters. A mouse is a device, which could be held and used to move a pointing device about, usually in the shape of an arrow on the screen of a computer.

There are 2 major types of software. The first type is application software the word-processors, spreadsheets, transaction processing systems, databases and personal information management systems. The other one is the operating system software which enables application to be run.

The mainframe computers are used for large volume data processing commitments, as they are capable of operating automatically at higher speed. They printout invoices, pay slips, payrolls, purchase orders, cheques and remittances advice slip in greater volumes in a very short space of time.

1.2.1. Characteristics of Computer

The following constitute the most common attributes of a computer. They are:

- i. **Speed** – The computer is able to act and do things very quickly. Computers work at incredible speeds, performing hundreds, thousands and even millions of calculations in a second.
- ii. **Accurate** – The computer produces accurate or correct answers only to any given problem. The computer does not make mistakes like human beings. Once it is told what to do and how to do it, the computer does the job exactly the same way, no matter how many millions times the work has to be repeated.
- iii. **Reliable** – Once it is properly kept and electricity supply is on at all times, the computer does not need to go on break. It will never complain of being overworked – no closing time, all day everyday for years.
- iv. **Computers have memory like that of human being** – Once you teach the computer how to add, subtract or multiply numbers, it never forgets again. Because of this property, many people sometimes take the computer to be superior at least better than human beings.
- v. The computer is in a way different from human beings because it cannot yet think. It is only able to do exactly what it is told to do and no more. Somebody has to tell the computer what to do at all times.
- vi. The computer can keep or store large amount of records or data, in very little space. A whole book can be stored on just one diskette or CD-ROM.
- vii. It is very easy and quick to ask for and obtain the information stored in the computer. In other words, retrieval of data is quite easy and fast.

1.2.2. Importance of Computers to Human Development

Ogala (2003) noted that a computer system was first used primarily as a tool for calculating large number by scientists and the military. Gradually, it became useful in offices and industries mainly as a process control and data processing tool. Presently, the computer has become a common tool in schools and homes for accomplishing many varied tasks and applications.

The computer is now a tool that does many things such as:

- a. Writing letters and reports
- b. Printing books, newspapers and magazines
- c. Drawing pictures and diagrams
- d. Doing statistics, mathematics and handling financial records
- e. Controlling traffic lights
- f. Flying Aeroplanes.
- g. Making and playing music including video films.
- h. Sending messages to other persons anywhere in the world.

In Nigeria today businessmen and women including governmental organization and private organizations make use of computers to process activities. Business and public sector organizations install computers to reduce administrative paperwork and cost. Some of the way it is accomplished includes:

- a. Secretariat departments use business computers to perform word processing task which decreases their workload by almost fifty percent.
- b. Record – Keeping departments search for, retrieve, alphabetize, recalculate, print and process information in a fraction of the time with the aid of computers.

- c. Payroll departments handle the payroll with its many salary levels, commissions, tax withholding, and pay cheque issuing by the aid of computers.
- d. Production and inventory departments with the help of computers carefully monitor all phases of operation, such as cost effectiveness and the ordering of all supplies that will be needed to complete a given task.

Computers also plays a vital role in the lives of patients in the hospital. Without computers, it would be too costly to monitor borderline patients around the clock and many would die. Similarly in the operating room, computer displays data about the patient's vital signs and sound warnings if serious problem occurs. Computer Axial Tomography (CAT) scanner now enable doctors to see things that never show up on ordinary x-rays. Computer Axial Tomography (CAT) is a non surgical means of viewing the body using a computer display produced by series of x-rays. A CAT scanner can rotate around the patient, taking sources of x-rays in a matter of minutes. A computer then processes the x-rays and generates a screen cross-sectional images of the patients body.

Furthermore, computers also help to interpret laboratory test. This is called computer-Aided Diagnoses. Some number of ways Hospitals, medical clinics of the Local, State and Federal government can use computer are:

- a. To study diseases such as heart diseases and cancer.
- b. To train doctors and other health personnel.
- c. To perform routine record-keeping tasks, thereby permitting doctors and nurses to spend more time with patients.
- d. To speed processing of laboratory tests.
- e. To analyze brain waves (Researchers are investigating fatigue, stress, and mental illness).
- f. To monitor pulse, temperature, blood pressure and other vital signs.
- g. To provide early warning profiles of illness.
- h. To record aspects of medical treatments.
- i. To perform medical stimulations.
- j. To keep doctors informed of changes in the medical files (medical information banks).

Computer are also important to law enforcement as a device for detecting crimes to a greater extent.

The Internet

The internet is a huge network of computer networks. There are virtually millions of separate computer networks today around the globe. The internet links million of people and thousands of companies, educational institutions and many other types of organizations worldwide and enables them to be able to communicate with one another. It is the network that interconnects most of the other industrial network in the world through a common communication protocol called TCP/IP.

Another term that is used to depict the essence of the internet is cyberspace. It refers to the other world of electronic communication in which individuals or organizations push data and information around to other individuals or organizations around the world. It has created a global marketplace in which people can carry out trade (e-commerce), shop, do their banking, browse libraries, visit museums.

Some examples, of services offered over the internet are provided below:

- a. E-Mail (Electronic Mail)
- b. File Transfer Protocol (FTP)
- c. Terminal Emulation Link Network (telnet)
- d. New Groups

- e. Gopher
- f. World Wide Web.
- i. **E-Mail** – This is the most used of all the services provided by the internet. Millions of people with internet access can be reached through the net by e-mail.
Using e-mail, or electronic mail, is just like sending a letter to someone located elsewhere geographically.
E-mails could be sent to people within the same building who are sharing a Local Area Network (LAN), or by people geographically dispread but are interconnected via a Wide Area Network (WAN).
They could also be sent by people connected to the internet to other people who have access to the internet. To contact an individual, you create a text file, address the file and send it to the recipient's address.
- ii. **WWW** – The WWW is today what is driving the internet. It allows all kinds of documents containing texts, videos, sound and dynamic graphics or pictures to be hyperlinked together. The entire collection of these documents, stored in computer systems (called websites) around the world, is what is known as the WWW or World Wide Web.
You can view the web pages using a web browser. Mosaic, Netscape, Navigator and Microsoft Explorer are 4 examples of web browsing programs.
Netscape seems to be the most popular, but with Microsoft explorer catching up very fast.
- iii. **FTP** – File Transfer Protocol (FTP) enables people to be able to receive files from the net. FTP provides a giant electronic library of computer files. Infact, certain computers on the Net act as FTP sites. There are servers that users can log onto, to use the FTP software to request for files, which the FTP sites would then send to them. There are FTP sites throughout the world for any area of interest.
- iv. **Telent** – (Terminal Emulation Link Network). When a user wants to connect to a distant computer system because it has specialized programs, he or she can access it through the internet using telnet. To use telnet, the user must have an account on the distant computer or a free account must be available for he/she to use. In this way, a user can access programs and data on a distant computer as if he/she were at the distant computer's console.
- v. **News Groups**: Newsgroups are discussion groups. They are message areas where people can discuss a common area of interest. They are different from traditional broadcast news in that people can contribute to the content of the group as well as read it.
- vi. **Gopher** – This is a text viewer that can be used to follow linkages between documents. These linkages, called hyperlinks, may connect files anywhere in the world. Gopher usually display documents in a menu or free structure. Text documents that contain hyperlinks are known as hypertext.
- B. **Telecommunications**: This is a form of technology that is used to bring about the communication of voice and data signals over some geographical distance. It started in 1837 with the invention of the telegram by Samuel Morse. The Morse code, as the invention was called, was used to transmit information using electrical impulses over a copper wire. Messages were transmitted by translating characters into a sequence of long or short electrical impulses (called dots and dashes), that are then transmitted to a recipient.

Alexander Graham Bell improved upon the telegram in 1876. He showed that instead of transmitting voice signals through dots and dashes, it could be done by converting voice directly to electrical energy which is then transmitted over a wire (e.g. copper wire). This is done by continuously varying voltages such that at the other end of the communication

spectrum, the electrical energy is converted back to sound. This way, telephones were born (invented), and that was the major starting point of telecommunications.

It meant that as far as you have phones that are momentarily interconnected via a pair of wire, the other person (the recipient of the phone call) could pick up the phone and start a chat with the caller. Telephones were made to ring bells for the recipient to hear and pickup. Switchboards were later invented to make it possible for a caller to simply pick up a phone and dial any number. The switching devices could then send the call to the correct phone number of the would – be recipient.

Today, telephone have become ubiquitous at offices and homes. They can now not only be used in communicating voice but also data in the form of graphics, pictures, numbers, video and a multimedia of different data types. Instead of mere copper wires, we now have other transmission media like fiber optics, radio and satellites. Digital signals are now replacing analog ones.

In Nigeria today, we have a large number of telecommunication operators and companies. They are;

1. MTN Telecommunication
2. Globacom Telecommunications
3. Etisalat Telecommunication
4. Airtel Telecommunications etc.

All these Networks are extensively used by offices, homes and individuals to enhance business transactions, administrative operations and E – governance by disseminating important information.

Today computers and telecommunication are two main technologies of gathering, analyzing, manipulating, storing and communicating data. Today, the word data encompasses voice, text, numbers, fax, graphics, picture, video and multimedia. They reduced face-to-face meetings and it facilitates transactions. Radio and Televisions too have been playing enhancing roles in this regards as well.

1.3. The Role of Information Communication Technology (ICT) in Local Government Administration

The Universal Declaration Human Rights (UDHR) states that everyone has the right to take part in the government of his or her country. The role of ICT in facilitating (political) information exchange is manifested in the ways information flows-faster, more generously, and less expensively throughout the planet for decision-making and for development (Ahmed, et al, 2006). Gurumarthy (2004) defined E-governance as the use of ICTs to improve government interaction with citizens. ICTs facilitate the sharing of information or ideas by different nations of the world. They can improve government and strengthen democracy and citizen empowerment, and can help foster most transparent governance by enhancing interactions between government and citizens (United Nations Economic and Social Council, 2000). It can be particularly powerful in providing a voice to people who have been isolated and invisible. The objective of E-administration is to enhance transparency and accountability, leading to better governance (Bagozzi et al, 1992). Local Government Administrators must understand the power of technology and acquire the necessary knowledge and skills (Davis, 1992).

Moemeka (1994), Shepherd (1998), the United Nations (2005) and Nassanga (2001) explore the power of ICT in development and empowerment. Information leads to self actualization, especially when combined with other resources (Castels, 2003). ICT speeds up the flow of information and its use in decision-making (Ahmed et al, 2006). Bagozzi, et al (1992)

reinforced this position by stating that the benefits of ICT include accuracy, speed, enhanced communication process/mechanism, increased productivity, and acquisition of skills and knowledge. Mike Jensen (2002) in his research on the ICT as a tool for improving local governance in Africa with special survey on selected African municipalities (Zanzibar, Lusaka and Mapute noted as follows;

That E-governance is the use of ICTS to promote more efficient and effective government, facilitate more accessible government services, allowing greater public access to information, and making government more accountable to citizens. This would involve delivering services to the public via the internet, telephone, public access centers, wireless devices or other communications and information systems. Some of the operational benefits and roles of ICT identified here were;

- a. Computerization of internal accounting and payroll operations.
- b. Computers would also normally be used for word processing and budget planning (usually a spreadsheet, although some accounting systems would also have this functionality).
- c. Other common internal functions that also often employ the use of ICTS would be:
 - Job costing,
 - Purchase orders,
 - Avoid stock out,
 - Work orders,
 - ICT enhances flexibility in decision making process of governance,
 - Avoid delays in all manner of transactions.

Because of their importance in ensuring income generation and also because they can be built relatively easily on to the accounts payable system, the Information Communication Technology (ICT) application can be made valid in local governance in areas such as:

- Rates/tax administration
- Water and electricity billings
- Business licenses
- ICT would also assist operations such as:
 - i. Staff support (schedules, contract management, e-mail, web access).
 - ii. Scanning documentation and mapping
 - iii. Waste management.
 - iv. Council property management.
 - v. Roads and pavement management.
 - vi. Vehicle and fuel management.
 - vii. Inspections
 - viii. Urban planning-land titles, subdivisions and zoning applications.
 - ix. Building permit applications.
 - x. Local elections/voting.
 - xi. Public transport information
 - xii. Public health information.
 - xiii. Distance education/training and interaction with the public
 - xiv. Decision-support
 - xv. Intergovernmental communications.
 - xvi. Online publications.
 - xvii. Information exchanges
 - xviii. Training courses, workshops, conferences in matters relating to government.

- Public policy and public management will be organized using electronic distance training and conferences. Computerized land register projects will be executed by the National Directorate of Geography, management of lands, mapping of National territory, production of national territory, production of geo-reference information and the management of the right to its exploitation.
- Simplification of problem solving by the use of problem solving software like internet/telephones.
- Supply of information for improving managerial decisions.
- Assist in online executive training for administrators.
- Greater degree of systems integration on the basis that the output of are part of a system provides the input to a related subsystem which was the effect of eliminating duplications and delays.
- It is also important to emphasis that, for good governance, government information needs to be communicated to stakeholders like individuals and businesses for optimal investment decisions making. A number of governments have therefore embarked on e-government initiatives.

For example: -

	Scope	Country	Continent
1. e-Ghana	Country wide	Ghana	Africa
2. e-UK	Country wide	Britain	Europe
3. e-New Zealand	Country wide	New Zealand	Europe
4. Missouri e-Government Project	State wide	America	North America

1.4 Problems Militating Against Information Communication Technology (ICT) Applications in Nigerian Organizations

Today, scholars have identified several problems militating against the adoption of Information Communication Technology (ICT) in Nigerian organization. As observed by Oladejo and Adere (2010), the problems are;

- i. Inadequate awareness about Information Communication Technology (ICT) and ineffective technical knowledge in manning ICT gadgets.
- ii. Negative attitude of the government through inadequate funding.
- iii. Inadequate power supply: Government inability to provide a stable power supply has hindered the effective functioning of ICT system.
- iv. Ineffective regulatory mechanism by the Nigeria Communication Commission (NCC) by not adopting to established benchmarks resulting to epileptic symptoms and frustration in communication Networks.
- v. Unreliable telecommunication facilities. This is because of poor telecommunication networks in Nigeria. As a result of this transactions in information technology are greatly limited as compared to what exists in other countries.
- vi. Internet fraud and other cyber-crimes may discourage the full adoption of information communication technology concept by the society.
- vii. Lack of technical competence - One area that some work needs to be done in the country if we are to properly embrace information and communication technology is by training of competent professional in the various domains of technology. There is an acute dearth of specialists in LAN, WAN, internet, connectivity, VSAT, Radio, fibre-optics, package switching and wireless telephony technologist in the country.
- viii. Acquisition of obsolete equipment - According to Sev (2000) purchase of wrong and obsolete equipment have also been identified as another factor constraining the rapid

development of Information Communication Technology (ICT). On this note, it is pertinent that well skilled professional be trained to man computerization as well as detect defective parts/installations that are no longer relevant in the system in order to enhance productivity.

1.5 Statement of the Problem

The bid to enhance operational efficiency, improved performance, improved quality of service delivery, to enhance transparency, competitive advantage and sound administrative control mechanism have called to the need to adapt and apply information communication technological (ICT) devices such as computers, telecommunication and electronic appliances. This has aided the processing of information, raw data, pay rolls and keeping accurate records by the local government of Benue State of Nigeria.

The effective application of these will facilitate accurate, reliable, speedy processing of information for a desirable administration. But over the years in the local government administration in Benue State, Nigeria there are several reported cases of ugly practices leading to cybercrimes and manipulations of local government accounts /allocations which have resulted to improper financial record keeping and irregularities against the norms of optimal functioning. These have called for the concern of the researcher to x-ray on this worrisome trend in local government administration in the Benue State, Nigeria.

1.6 Objectives of the Study

- (1) To determine the impact of the role of Information Communication Technology (ICT) on productivity in the local government administration of Benue State, Nigeria.
- (2) To identify the problems militating against the application of information communication technology (ICT) in local government administration in Benue State, Nigeria.

1.7 Research Questions

- (1) To what extent has the role of Information Communication Technology (ICT) impacted on the productivity of local government administration in Benue State, Nigeria.
- 2) What are the problems militating against the application of information Communication Technology (ICT) in local government administration in Benue State, Nigeria.

1.7. Research Methodology

The research design adopted in this investigation was largely Quasi-Experimental one in the sense that it places a premium on sample survey. The population of the study consisted of all the twenty three (23) Local Government Areas of Benue State namely, Ado, Agatu, Apa, Buruku, Gboko, Guma, Gwer-East, Gwer-west, Katsina-Ala, Kwande, Konshisha, Makurdi, Oju, Obi, Okpokwu, Otukpo, Ohimini, Ogbadibo, Ushongo, Tarka, Logo, Vandeikya and Ukum. A judgmental sampling technique is adopted whereby 5 employees each are sample from the respective local government councils. This makes a total sample size of 115. The rationale was to attract the highest level of objectivity so as to guarantee validity and reliability in the research endeavour.

The five point likert rating scale questions ranging from strongly agree, agree, undecided, disagree and strongly disagree were used to sought for responses from the respondents. Pearson chi-square is used for testing the two formulated hypothesis.

1.8. Data Presentation and Analysis

Table 2.1: Respondents opinion as to whether Information Communication Technology (ICT) have played positive roles in areas of computerization of internal Accounting and payroll operations, word processing and budget planning, job costing, scanning documentation, mapping, decision support, online executive training, urban planning amongst others.

Category of Respondents	Local Government Employees	
	No of Respondents	% of Respondents
Response option		
Strongly Agree	52	45.22%
Agree	42	36.52%
Undecided	5	4.35%
Disagree	8	6.96%
Strongly disagree	8	6.96%
Total	115	100%

Source: Field data (2013).

In deciding whether Information Communication Technology (ICT) have played positive roles in areas of computerization of internal Accounting and payroll operations, word processing and budget planning, Job costing scanning documentation, mapping decision support, online executive training, urban planning amongst others, it is revealing from data on table 2.1 above that 52 respondents representing 45.22% strongly agree while 42 respondents standing for 36.52% agreed. 5 respondents constituting 4.35% were undecided on this position. 6.96% standing for 8 respondents strongly disagreed while 6.96% standing for 8 respondents disagreed on the notion. This is clearly manifest in the fact that Information Communication Technology (ICT) have played a positive role in computerization of internal Accounting and Payroll operations, word processing and budget planning, job costing, scanning documentation and mapping, decision support, online executive training and urban planning amongst others.

Table 2.2: Respondents views as to whether inadequate power supply, ineffective regulatory mechanism, unreliable telecommunication facilities, lack of technical competence amongst others are the problems militating against Information Communication Technology (ICT) applications in the local government administration in Benue State of Nigeria.

Category of Respondents	Local Government Employees	
	No of Respondents	% of Respondents
Response option		
Strongly Agree	44	38.26%
Agree	52	45.21%
Undecided	4	3.47%
Disagree	7	6.09%
Strongly disagree	8	6.96%
Total	115	100%

Source: Field data (2013).

Table 2.2 shows the respondent views as to whether inadequate power supply, ineffective regulatory mechanism, unreliable telecommunication facilities, lack of technical competence, negative attitude of the government amongst others are the major problems. Militating against the effective application of Information Communication Technology (ICT) in Local Government Administration in Benue State, Nigeria in this case affecting productivity attainment.

Up to 38.26% standing for 44 respondents strongly agreed on this note while 45.21% (52 respondents) only agreed to this position. 3.47% of the proportions representing 4 respondents were undecided on this matter. However, 7 respondents representing 6.09% disagreed while

6.96% standing for 8 respondents strongly disagreed that several factors/problems are militating against the application of Information Communication Technology (ICT) in Local Government Administration in Benue States, Nigeria.

1.9 Testing of Hypotheses

Two hypotheses were formulated for testing using Pearson chi-square test.

Hypothesis 1:

The roles of Information Communication Technology (ICT) have no significant impact on the productivity in the Local Government Administration in Benue State, Nigeria.

Table 1: Is Applicable for testing.

O	E	(O - E) ²	$\frac{(O - E)^2}{2}$
52	23	841	36.56
42	23	331	15.69
5	23	324	14.08
8	23	225	9.78
8	23	225	9.78

$\sum 85.89$

$$\begin{aligned} \text{Therefore } X^2 &= 85.89_{\text{cal.}} \\ D/F &= 5 - 1 = 4 \text{ at } 0.05 \\ X^2_{\text{tab}} &= 9.48. \end{aligned}$$

Decision:

Since the calculated value is higher than table value, we reject the null hypothesis that; the role of Information Communication Technology (ICT) has no significant impact on productivity in the local government administration in Benue State.

Hypothesis 2:

There are no significant problems militating against the Application of Information Communication Technology (ICT) in Local Government Administration in Benue State, Nigeria.

Table 2: Is Applicable for testing.

O	E	(O - E) ²	$\frac{(O - E)^2}{2}$
44	23	441	19.17
52	23	841	36.56
4	23	361	15.69
7	23	256	11.13
8	23	225	9.78

$\sum 92.33$

$$\begin{aligned} \text{Therefore } X^2 &= 92.23_{\text{cal.}} \\ D/F &= 5 - 1 = 4 \text{ at } 0.05 \\ X^2_{\text{tab}} &= 9.48_{\text{tab.}} \end{aligned}$$

Decision:

Since the calculated value is higher than table value, we reject the null hypothesis that; there are no significant problems militating against the application of Information Communication Technology (ICT) in Local Government Administration in Benue State.

1.10. Discussion of Finding

The study has produced startling discoveries as evidenced from the data presentation and analyses. Firstly, it is found that Information and Communication Technology (ICT) have

played a positive role in areas of computerization of Internal Accounting, payroll operations, word processing and Budget planning and administration, job costing, scanning documentation and mapping, decision support, online executive learning/training, urban planning amongst others in the 23 local government areas of Benue State, Nigeria.

This agrees with the view of Adenuga (2003), Ajayi (1995) who in their separate presentations maintained that Information Communication Technology (ICT) have created many new opportunities for Accountants in areas such as information development and information systems design to enhance quality management decision making. It has also facilitated information system management control. This has achieved sustainable competitive advantage. This is due to the fact that Accountants and financial officers of the local government because of their financial skills and objectivity can provide valuable advisory services relating to assessing investments in strategic information technologies, and advising about control system required to meet the needs to management and in most cases the requirements of legislations and regulations.

ICT skills have also enhanced planning in that operators performs appropriate analysis of IT investment, it also resulted to the understanding of areas of risks and benefits. It stimulates and helps manage organizational change and facilitate ability to communicate effectively such that organizational tasks are done accordingly and timely. ICT has also enhanced new administrative reengineering approaches based on effective integration of information technological devices and business processes.

The implication in this regard is that local governments that want to enhance sustainable competitive advantage and have sound control mechanism should earmark reasonable finances to acquire ICT devices such as computers which are the latest models etc in order to remain relevant in their administrative operations on a consistent basis. They need as well to update the skills acquisition status of operators through sound training. All these require proper funding.

Secondly, the study found that there are several problems militating against the application of Information Communication Technology (ICT) in the 23 local government area of Benue State. These problems include lack of technical skills, acquisition of obsolete equipments, erratic power supply, poor technological know how, unreliable telecommunication facilities, ineffective regulatory mechanism by the Nigeria Communication Commissions (NCC), inadequate awareness about ICT applications, and negative attitude of the government through inadequate funding amongst others. This agrees with the view of Sev (2000) who stressed that purchase of wrong and obsolete equipments have also been identified as a big factor constraining the rapid development of ICT. On this note, it is necessary that well skilled professionals be trained to man computerization as well as detect defective parts/installations that are no longer relevant in the system in order to enhance productivity. The implication is that local government administrators need to be transparent and accountable in their affairs in order to obtain good governance. They need to shy away from ugly practices and trends that are counterproductive, such that sustainable competitive advantage will be derived from their operations.

1.11. Conclusion

It is pertinent to derive that organizations be it private and public organizations that embrace/adopt information communication technology will attract enormous benefits. These benefits includes; enhanced operational efficiency, improved performance, improved quality of service delivery resulting to customer satisfaction, increase in market share growth and to a greater extent will result to enhanced sustainable competitive advantage.

It is true that local government in the state has primary and secondary schools within their jurisdiction, they have hospitals as well as other key institutions and services. The proper adoption of ICT will facilitate learning in these institutions if these ICT applications are made available to their door steps. For example the installation of ICT centers at local government secretariat, ICT laboratories at each L.G.E.A primary schools to facilitate learning will be a welcome initiative of transformation and catalyst for learning and training in rural areas.

Local government administrators should also endeavour to supply medical computers to their Hospitals to facilitate scanning, x-rays, detection of diseases etc. This will go a long way in repositioning the health status of citizens leaving at the rural areas. It is also important to note that for proper account recording, payroll preparations, secretariat administration, amongst others, computers are to be acquired to enhance operations and proper staff training in their regard to enable them embrace the benefits of globalization in the 21st century.

It is therefore important that, problems militating against effective ICT adoption at local government areas be identified so that proper attention be given in addressing such adverse trends. The problems may include; inadequate power supply, inadequate awareness of ICT importance, unreliable telecommunication facilities, negative attitude of the government amongst others. Proper identification of the challenges will leads to an increased likelihood of the identification of remedies for tackling the ugly trends.

1.12. Recommendations

1. The Local Government Administrators should made investment in Information and Communication Technology (ICT) a top priority hence it is proven that it is a catalyst/accelerator for development in areas of *education, health, secretariat administration, proper financial record keeping, politics, governance, culture, business and production.*
2. Government should revive the power sector and provide a stable power supply to enable the ICT system/units at the local government areas viable to facilitate optimal functioning. Alternatively, Local government Administrators should make concerted efforts towards acquiring Maikano Generators to be installed at all their ICT centers to facilitate power generation while they wait for Federal government action in this regard.
3. The telecommunication system in Nigeria needs to be completely overhauled or revived (revisited) hence their regulatory body Nigeria Communication Commission (NCC) have not adequately enforced their reforms on the operators. This will pave way for enhance transparency and accountability.
4. Information and Communication Technology (ICT) should be adopted by all the 23 local government of the state. On this note, increase training of employees in ICT utilization should be adequately carried out hence operational efficiency, quality service delivery, sustainable competitive advantage and improved performance will be the outmost benefits to be derived.
5. The Local government of the state should embrace the e-payment systems/transactions in order to enhance accuracy and reliability. Through this transparency and accountability will be derived in their accounting and financial systems of operations. Detection of irregularities and fraudulent acts can easily be made if this mechanism is adopted than the manual payment system in use presently.

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