

Utilisation Of Information And Communication Technologies (IcTs) Tools In Government Administration: A Study Of Kaduna State Governmnet, Nigeria

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ABSTRACT: In line with the current trends in the use of Information and Communication Technologies tools for various administrative purposes both in government establishments and private sectors in different countries of the world; this study investigates correlation that exists between deployment and utilization of ICTs facilities in government's ministries, by extension departments, units and sections for administration efficiency in Kaduna state and sampled employees' ICTs skills influence on the government productivity. Results showed that there is strong relationship between the deployment of various ICTs facilities in the state government ministries of education, economic planning, finance, information and orientation, and science and technology and employees' usage for varied administrative duties assigned to them. This was established through Pearson Moment of Correlation Coefficient and test of statistical significance. The study also found that Information and Communication Technologies skills of the employees influence the use of ICTs for government productivity at the Chi-Square value of 300.000 at 6 degrees of freedom which was significant at 0.000. Based on the findings, the researcher recommends among others that other state and local governments in Nigeria should emulate Kaduna state government by deploying necessary ICTs tools to various ministries, departments and agencies so as to ensure adequate performance and enhanced productivity on the part of employees in all ramifications. There is also a need for any government that wants to be relevant in terms of G2C ICTs application to equip her staff with necessary movable ICTs facilities not only office-stationed tools.

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INTRODUCTION

In the past, human efforts are the only means through which mankind solve various problems facing them in their respective societies before the advent of mechanical means, which entails specific efforts in the areas of science, engineering and technology. Information technology as a concept stems from the mankind's continued searches to solve information problems and managing necessary data with ease. Information Technology is about super-highways. It is not only about information super-highway, but also about developmental highways. When Japan and the Asian tigers were developing, they virtually had to pilfer technological information from the West, and then only in bits and pieces. At the touch of a computer, virtually all the information accumulated by the developed countries over the centuries is available even to the least developed of countries (Ademiluyi, 2004). Referring to Gates (1997), Ademiluyi (2004) observes further that properly harnessed, information technology provides third world countries with a development shortcut without precedence in human history.

Adam (1986) cited by Ademiluyi (2004) describes information technology as an electronic

based technology which can be used to collect, store, process and package information and provide access to knowledge. It comprises both the supply side and the user side. The term also encompasses the notion of application of technologies to information processing. Since the end of World War II, the world has entered an age of globalisation. The concept of the global village has meant that the world now operates a global economy. With greater freedom of trade and investment and new breakthroughs in telecommunication technology, markets have become much larger, more complex and more intricately interlinked than ever before. Information technology today is the major engine of economic growth. Thus, it has brought about a steady increase in universal living standard. Information revolution is sweeping across the planet and the global economy is increasingly becoming information driven one. It is not only the economy of nations of the world that is being driven by information and communication technology tools, it is also applicable to government administration at all level of governance; be it local councils, state and national governments.

Tiamiyu (2003) notes that ICTs are the electronic technologies for creating, acquiring, storing,

processing, communicating and using information; ICTs can be analytically classified along two dimensions: (i) *content-conduit* dimension (horizontal axis); and (ii) *service-product* dimension (vertical axis). Content-oriented ICTs emphasize content (e.g. database products; electronic books, web-sites). Conduit-oriented ICTs provide the channels or media for the storing, conveying or transmitting of information content (e.g. the telephone network). Product-oriented ICTs are physical objects for information processing or transmission equipment (e.g. computers, cellular phones, TV transmitters, etc.). ICT products are usually combined and networked to form ICT infrastructure or systems. Specifically, service-oriented ICTs emphasize the provision of information services through the information infrastructure or systems (e.g. bulletin board services, radio broadcast services, online searching, etc.). It should be noted that the ICT content products and services provide either information directly; information conveyed by a radio broadcast or information processing capability (e.g. word processing software). With all these features of Information and Communication Technologies (ICTs) tools, the task of governing all the sectors of government at all levels has become ease.

Electronic government application with special reference to IT components lies at the heart of any management process to build the interface between the government and its people. With the growing complexity of modern organizations, not to speak of the systems in public sector, information technology is playing greater role in providing integration, coordination and also in building the interface between the government and the people in society (Ambali, 2010). In the light of these, the current study intends to investigate the extent to which Kaduna State Government deployed and utilised ICTs tools for effective governance in line with current global practices. The specific intents of the study include: What is the correlation between deployment and utilisation of information and communication technologies (ICTs) for administration efficiency in Kaduna state? Do Information and Communication Technologies skills of the employees influence the use of ICTs for government productivity? From the second research question, the researcher hypothesized that ICTs skills of the sampled employees would influence the use of ICTs facilities for administration efficiency.

STATEMENT OF THE PROBLEM

Uwaje (2000) opines that the term "information technology" includes computers and communication technology as well as associated software's. Information technology is geared towards addressing the barriers of business. Such barriers include those of time, cost and distance. For all areas

of science, information technology is now of great importance, both as a research tool and as a medium of facilitating the information transfer process (Metcalle, 1990). Management practice has been a major beneficiary of the introduction of information technology. Management functions include: planning, organizing, directing, controlling, co-ordinating and staffing. All these have been positively influenced by the advent of information technology. The planning function of management has benefited from the ready availability of information on every factor required for planning. With the computer, projections of income, expenditure, raw-material requirements and pricing, are much easier, much faster and much more accurate. Coordination is also much easily facilitated by communication. Improvements in communication automatically influence for the better coordination activities of a corporation. The controlling function is aided by the computer because standards can be more specifically set and more accurately measured. Staffing is affected by the existence of database on personnel. Personnel requirements can be most efficiently met by gaining access into database of applicants, if developed (Ademiluyi, 2004).

Previous studies have been conducted focused on the essence of Information and Communication Technologies (ICTs) tools in reducing human efforts and achieving optimal results with little human (personnel) and non-human (ICTs tools) resources in education, economy, governance and other facets of humanity, establishing the place of ICTs tools, especially the New Media in bridging communication gaps that usually exist between the government and governed. In his study, (Obeng 2004) cited by Krishnaveni and Meenakumari (2010) found that staff administration done through Information and Communication Technology (ICT) helps in processing of voluminous records in a quick, meticulous, and impeccable manner thereby making data retrieval easier. Commenting on the finding, Krishnaveni and Meenakumari (2010) note that it is clearly shown that ICT has become a necessary tool for accomplishing the administrative tasks with ease. Through the study, it is evident that transformation in accordance with technological advancements is happening in the education sector. It is mainly used in the areas of student administration and staff administration. The extent of usage for general administrative activities is comparatively less. The study also found that current level of usage indicates a clear integration of ICT for managerial or information-based administration in higher education institutions. Specifically, the study reveals that demographic factors do not have major impact on information administration in higher education institutions. Since administrative tasks are also part of governance, the use of ICTs tools would

go in a long way of easing different administrative tasks assigned to different categories of employees in a government establishment or ministry. To achieve the administrative tasks easing in governance, government at all levels in developed and developing nations are now embracing specific tools of Information and Communication Technologies in all the structures of their respective establishments, but at a different degree. To accomplish this, governments are introducing innovations in their organisational structures and practices, and in the ways in which they mobilise, deploy and utilise human, financial and ICT resources (United Nations, 2008). Queensland Public Service Commission, (2013) and OECD (2009:15) argue that: The use of ICT in the public sector, or e-government as it is known, is playing a critical role in governments' efforts to revitalise their public sectors. Modern ICT is a significant strategic tool for lifting public sector performance, offering benefits of greater efficiencies and effectiveness in government operations and service delivery, improved communication and coordination across organisational boundaries and levels of government, and greater transparency and accountability in government functions. Consequently, over the past 10 to 15 years, governments around the world have utilised information and communication technologies, particularly digital technology, which has significantly changed the ways in which governments do business with citizens. The potential for further change continues with recent advancements in ICT and with changing societal expectations.

While governments continue to modernise ICT infrastructure, they are also working to leverage the infrastructure within the public sector in order to better share information, internally and externally, and to deliver integrated services. Responding to complex policy problems requires collaboration across organisational boundaries as these problems cut across portfolios that have traditionally been compartmentalised. Clients also want responsive, integrated services; they do not want to deal with multiple providers. ICT for service delivery (e-government initiatives) is being revisited to enable more effective inter-organisational linkages and consolidation of government systems to support the necessary collaboration; so as to better deliver services to clients (United Nation, 2008:3). It is against this backdrop that, this study seeks to investigate the correlation between deployment and utilisation of Information and Communication Technologies (ICTs) tools in Kaduna State's government administration and whether ICTs skills possessed by the employees influence the use of ICTs tools for government productivity.

RESEARCH QUESTIONS

The following research questions are asked and answered in the course of this study:

1. What is the correlation between deployment and utilisation of Information and Communication Technologies (ICTs) for administration efficiency in Kaduna state?
2. Do Information and Communication Technologies skills of the employees influence the use of ICTs for government productivity?

Hypothesis

H₀: Information and Communication Technologies Skills of the employees did not influence the use of ICTs for government productivity.

H₁: Information and Communication Technologies Skills of the employees influence the use of ICTs for government productivity.

LITERATURE REVIEW CONCEPT OF COMMUNICATION AND INFORMATION MANAGEMENT IN GOVERNMENT ADMINISTRATION

Since an ideal government needs to communicate with its targeted publics, especially citizens in all ramifications, there is always means of passing the needed messages to the appropriate publics. These include traditional means; mass media and modern Information and Communication Technologies tools such as Internet, mobile phone, interactive media and so on. Different scholars have delineated the concept of ICTs within the context of government administration both in developing and developed nations. In a more comprehensive way, Ambali (2010:134) referring to Kieley, et al, (2002) defines electronic government as "an IT-led reconfiguration of public sector governance-and how knowledge, power and purpose are redistributed in the light of new technological realities". The same scholar adds that electronic government entails the use of information and communications technologies (ICT) to promote more efficient and cost-effective government, facilitate more convenient government services, allow greater public access to information and make government more accountable to its citizens. Put it succinctly, Ambali (2010) points out that the electronic government applications in public sector is a potential tool to support the development of flexible and convenience ways for people to communicate and conduct business with their governments.

Generally, it is highly believed that no managerial reform can be materialized unless it is supported by ICT to improve effectiveness and efficiency of personnel management, procurements and many other government activities. The

opportunities presented by e-government for improved administration, among other things, are leading to a global convergence toward a standard reform model in public sector. ICT-enabled reforms can yield many benefits, including lower administrative costs, faster and more accurate response to requests and queries of the citizen, especially after the normal office hours. It will also lead to direct access to transaction or customer accounts held in different parts of government institutions. More so, e-government provides basis for ability to harvest data from operational systems, thus increasing the quality of feedback to manager and policymakers. However, the benefit can only be materialized if different offices and people are willing to share information with common mutual interests (Ambali, 2010) referring to Kaboolian (1988) Landsbergen and Wolken (2001). In fact, the mainstream of ICT within planning and design of improving strategies in public sector is pivotal, both at national, local and regional levels of government administrative bodies. Hence, e-government becomes a particularly important ICT application in the public sector for better service delivery system (Ambali, 2010).

REVIEW OF EMPIRICAL STUDIES

Writing on the application of Information and Communication Technologies tools as Electronic government which encompasses all government roles and activities, shaped by information and communications technologies (ICTs), Brown (2012) notes that the use of ICTs are beyond analogies to e-commerce, it encompasses the four domains of governance and public administration: the state's economic and social programs; its relationships with the citizen and the rule of law (e-democracy), its internal operations and its relationship with the international environment. Specifically, according to the scholar, E-government builds on three evolving forces: technology, management concepts and government itself. It has given rise to several phenomena that are redefining the public sector environment, including the International Institute of Administrative Sciences. Four aspects of e-government have lasting impacts on public administration: citizen-centered service, information as a public resource, new skills and working relationships, and accountability and management models. The challenges of e-government are even more acute in developing countries, although it also offers solutions. Public administration in all countries requires new thinking and leadership to ensure that e-government realizes its full potential. In a study conducted among Italian manufacturing firms within the period of 1995 to 2003 for the examination of the complementarity among information and

communication technologies (ICT), skills, and organizational change from a panel of 680 Italian manufacturing firms. The researchers, Giuri, Torrisi and Zinovyeva (2008) found evidence of complementarity between skills and organizational change, but did not find evidence of complementarity between ICT and skills. Moreover, their results showed that the hypothesis of full complementarity among ICT, human capital, and organizational change does not apply to small and medium firms. Instead, they discovered that organizational change yields negative effects on the complementarity between ICT and human capital.

In a similar research study on the use, types, and availability of information and communication technologies (ICTs) in four government departments in KwaZulu-Natal, South Africa, in the context of work productivity and creativity, Mbatha, Ocholla and Roux (2011) using Diffusion of Innovations Theory, found that a variety of ICTs have been adopted in the sector for interaction and communication. The respondents' level of interaction with some of the ICTs was very high, while the use of ICTs such as video conferencing, television and radio was very poor. The most common obstacles to the effective use of ICTs in government departments were found to be lack of skills or competence, the lack of an ICT policy, and the lack of proper planning for the adoption and diffusion of ICTs in the sector. In their study, Kiula and Wafula (n.d) on the effective penetration and utilisation of ICT in the public service for high-end value-adding operations in local government; to enhance effective and efficient services that satisfy the citizens and other stakeholders. ICT penetration and utilisation was found to have a significant linear relationship with ICT resources, the level of education, age, and length of service and the job scale of staff. In the light of above studies, the current study intends to investigate the deployment and utilisation of Information and Communication Technologies (ICTs) tools in administration of Kaduna State government. In a nutshell, the study seeks to find out the correlation between deployment and utilization of information and communication technologies (ICTs) and administration efficiency in Kaduna state, whether information and technology skills of the employees influence the use of ICTs for government productivity or not.

ACHIEVING GOVERNMENT'S GOALS THROUGH INFORMATION AND COMMUNICATION TECHNOLOGIES (ICTS) TOOLS

In the current 21st century of managing human and material resources through effective and systematic governance, governments in both

developing and developed world are craving for the use of ICTs in one way or the other; purposely to reduce bottleneck associated with manual efforts and bringing governance to close to their citizens of different categories. Complementing this view, United Nations (2012) notes that in the current recessionary world climate, in which the lives of people have become ever more interconnected, governments have been harnessing the power of information and communications technologies (ICT) for delivering much needed sustainability in social and economic services to their Citizens. One can argue that this prompt policymakers and those at helms of affairs to have different usage of Information and Communication Technologies for effective administration in all aspects of the government; be it at local, state or national levels. The different usage of ICTs in government administration include G2C (Government to Citizens), G2B (Government to Business) and G2S (Government to Staff). E-government is at the core of building a strategic sustainable development framework. One of its key functions has been to provide an integrated framework of policies, laws and regulations and develop institutions and processes that allow the private sector to provide – and the people to partake of – the benefits of newer technologies. The underlying principle of e-government, supported by an effective e-governance institutional framework, is to improve the internal workings of the public sector by reducing financial costs and transaction times so as to better integrate work flows and processes and enable effective resource utilisation across the various public sector agencies aiming for sustainable solutions. It seeks to establish ‘better processes and systems’ aimed at more efficiency, effectiveness, inclusion and sustainability (United Nations, 2012). Governance is the process whereby all stakeholders in society are enabled to articulate, negotiate and harmonize their interests, vision, resources and actions. Accordingly, good governance demands efficient systems for effective intra- and inter-stakeholder communication, information processing, decision-making and action towards the attainment of harmonized objectives, means and ends. Efficient intra-group communication will enable each group to maximally articulate and exploit its resources. Similarly, efficient information among various groups towards the harmonization of their vision and action at the societal level and for governments, having an ICT-skilled workforce is considered a strategic asset to spur economic growth, promote competitiveness, and business productivity (Tiamiyu, 2003: 51, Garrido, Sullivan, Gordon and Coward, 2009:1).

Pointing out the ICTs application areas in governance, Tiamiyu (2003:53) referring to Institute of

Governance, 1996; UNECA, 1996a) notes that ICTs can be exploited to improve public administration through:

- Economic planning and administration within various agencies responsible for regulating and guiding socioeconomic activities.
- Faster intra-and inter-agency communication and coordination through both computer and telecommunications networking for voice, electronic messaging and data sharing.
- Decision support systems to enable data-intensive planning, research and policy formulation in specific activities of government agencies.
- Management of public debt and external aid through the use of ICTs to document and create databases of public debt and foreign aid objects.
- Monitoring, control and forecasting of citizens, businesses and socioeconomic activities through computerized civic and business registration systems.
- Tax administration through the use of ICTs for tax administrative activities including assessment, forecasting and monitoring.
- Traffic and transportation control and regulation through vehicular registration, traffic data collection and management, road maintenance scheduling.
- Administrative record keeping and archiving through use of ICTs to create databases of administrative records, and for the digital storage and archiving of existing paper records.
- Electronic availability and access to data: use of ICTs to assemble, maintain and publicize government statistical data.
- Improving policing and public safety, by applying ICTs for personnel; for maintaining and researching crime databases; for electronically intercepting undesirable cross-border information flow among criminals.
- Improving environmental planning and protection through town and country planning databases, geographical information systems for forecasting and monitoring environmental usage and degradation.
- Facilitating regional coordination and integration, through networking of the information systems of various stakeholders of governance in the different countries of Africa or West Africa.

One of the overarching rationales for e-government application in public sectors is improved efficiency. In applying e-government, the efficiency

can take different forms. For example, one form is to reduce errors and improve consistency of outcomes of governmental projects through automating standard tasks. The second form of efficiency improvement is to reduce costs and the many layers of organizational processes (the popular bureaucracy) by streamline operating procedures through e-applications. Part of efficiency improvement is reduction in time spent on repetitive tasks. This will give the federal, state and local government employees ample opportunity to develop new skills and advance their careers. It is highly believed that no managerial reform can be materialized unless it is supported by ICT to improve effectiveness and efficiency of personnel management, procurements and many other government activities (Ambali, 2010:137).

THEORY/CALCULATION

This study is underpinned with two theories; Diffusions of Innovation and Uses and Gratifications. The two theories are germane to the purpose of the study, because the government would deem it fit to deploy necessary Information and Communication Technologies (ICTs) tools for the effective administration of both human and material resources available at its disposal and that employee would use the tools for various purposes based on his or her perception toward them. Referring to Rogers (1995), Igboaka and Ha (2010:20) identify five perceived attributes of innovations: relative advantage, compatibility, complexity, trialability and observability. Making reference to Rogers (1995), the scholars delineate that perceived relative advantage, compatibility, trialability and observability of an innovation is negatively related to rate of adoption. Uses and Gratifications Theory, on the other hand, is concerned with rationale behind the usage of certain media by audience. Specifically, the theory focuses on the audience; how they are using various media available to them. From the same line of argument, one can insinuate that employees in an organisation, be it governmental and non-governmental would put Information and Communication Technologies (ICTs) tools at their disposal into certain uses at varied degree, most especially depend on their (employees') relative advantage, compatibility and complexity with any assigned tasks or duties. The basic assumptions of the theory among other, as advocated by McQuail (2005:424) are:

- Media and content choice is generally rational and directed towards certain specific goals and satisfactions (thus the audience is active and audience formation can be logically explained).
- Audience members are conscious of the media-related needs which arise in personal

(individual) and social (shared) circumstances and can voice these in terms of motivations).

METHODS AND MATERIALS

Survey was chosen as the research design to obtain necessary data for this study while the employees in the Kaduna State Government are the population of the study. Specifically, a representative sample was drawn from the workers working in the purposively selected six ministries in the state secretariat. These ministries include education, economic planning, finance, information and orientation, and science and technology. These ministries were selected because of the relevance of Information and Communication Technologies (ICTs) tools to their daily administrative purposes and that the researcher conceived that these ministries would go in a long way in helping the government to attain its general and specific goals of sustainable development, if ICTs tools are adequately deployed and utilised to its fullness. Available and convenience sampling was employed to obtain representative respondents within the ministries. Through this sampling procedure, 150 copies of questionnaire were administered to the workers, who constituted the respondents of the study. Out of the one hundred and fifty respondents sampled for the study, Ministry of Education had 83, Economic Planning had 5, Finance had 7, Information and Orientation had 40 while Science and Technology had 15. It should be noted that the difference in the number of the respondents did not constitute any significant error to the study. It is only showed the extent to which the employees in the selected ministries were available and ready to respond to the questionnaire items. The questionnaire was segmented into four sections dealing with deployment and utilisation of ICTs tools in the chosen ministries, purpose of usage and ICTs skills of the respondents (employees) in relation to their educational status.

RESULTS AND DISCUSSION

From the outset, the purpose of the study was to find out the adoption and usage of various information and communication technologies tools in government administration using Kaduna State government, a state in Northern Nigeria. Specifically, the researcher aimed at revealing to what extent the state government deploys various ICTs for specific government purposes for effective administration considering the current trends in the usage of new media technologies. The main questions of the study are: What is the correlation between deployment and utilisation of Information and Communication Technologies (ICTs) for administration efficiency in Kaduna state? Do Information and Communication Technologies skills of the employees influence the use

of ICTs for government productivity? However, the generated findings through questionnaire as main research instrument are discussed apropos these research questions and formulated hypothesis below:

RESEARCH QUESTION ONE: What is the correlation between deployment and utilisation of Information and Communication Technologies (ICTs) for administration efficiency in Kaduna state?

Since previous studies reviewed have revealed that ICTs have been put into various usage in government and non-government administration, this question was purposely formulated with the hope of

adding to the ongoing discourse in ICTs field; unveiling associate relationship that might exist between deployment and utilisation of Information and Communication Technologies for effective administration in government establishments. For the attainment of the objective of the question, varied variables were formulated under deployment and utilization of ICTs in ideal government establishments. The formulated variables under deployment and utilization were later computed and analysed through Chi-square to reveal the disparity or affiliation that exist between deployment and utilization of ICTs in Kaduna state's administration.

Table 1: Correlation between Deployment and Utilisation of Information and Communication Technologies for Administration Efficiency

		Correlations	
		Utilisation	Administration Efficiency
Utilisation	Pearson Correlation	1	.993**
	Sig. (2-tailed)		.000
	N	104	104
Administration Efficiency	Pearson Correlation	.993**	1
	Sig. (2-tailed)	.000	
	N	104	150

** . Correlation is significant at the 0.01 level (2-tailed).

From the above table 1, it is clearly established that there is significant correlation between the various uses to which the sampled employees of the selected ministries put varied ICTs available to them into and administration efficiency of the government under study. This finding is in consonance with the submission of Ambali (2010) on delineation of an electronic government while referring to Kieley, et al, (2002). The scholar notes that an electronic government is "an IT-led reconfiguration of public sector governance-and how knowledge, power and purpose are redistributed in the light of new technological realities". The same scholar adds that electronic government entails the use of information and communications technologies (ICT) to promote more efficient and cost-effective government, facilitate more convenient government services, allow greater public access to information and make government more accountable to its citizens. The finding is also in line with five perceived qualities associated with innovation as identified by Rogers (1995). These qualities include relative advantage, compatibility, complexity, trialability and observability. The finding also agrees with the position of United Nations (2012) that in the current recessionary world climate, in which the lives of people have become ever more interconnected, governments have been harnessing the power of information and communications technologies (ICT) for delivering much needed sustainability in social and economic services to their Citizens.

RESEARCH QUESTION TWO: Do Information and Communication Technologies skills of the employees influence the use of ICTs for government productivity?

Whether someone is early adopter or late adopter when it comes to the use of new tools, especially new media technologies, the skills such person possessed will be of help in maximizing various benefits of such new media. It is against this backdrop that this research question was designed to find out the propensity of the ICTs skills possessed by the staff of the examined ministries influencing government productivity or efficiency. Various skills within the context of ICTs and government administration were tested as variables, which helped in generating relevant data for the research question and the tested hypothesis. The generated data were presented below with appropriate interpretation.

Table 2: Employees' ICTs Skills on the Usage of ICTs for Government Productivity

Variable	Response										Total	
	Strongly Agree		Agree		Strongly Disagree		Disagree		Undecided		No	%
	No	%	No	%	No	%	No	%	No	%		
Computer literacy	150	100	-	-	-	-	-	-	-	-	150	100
Use of Microsoft Word package for typing of document effectively and efficiently	60	40.0	90	60.0	-	-	-	-	-	-	150	100
Use of Microsoft Excel to process tasks that involve data processing and/or management	-	-	23	15.3	-	-	83	55.3	-	-	150	100
Handling printer for the printing of documents after typing such documents on Personal Computer (PC) in my office.	150	100	-	-	-	-	-	-	-	-	150	100
Browse the internet using various search engines while searching for information regarding the task assigned to me.	127	84.7	-	-	8	5.3	-	-	15	10.0	150	100
Ability to type very well with the needed accuracy.	67	44.7	83	55.3	-	-	-	-	-	-	150	100
Creating and managing an e-mail account for special programmes.	110	73.3	17	11.3	20	13.3	3	2.0	-	-	150	100
Managing institutional mobile phone for bulk SMS service for meetings and special programmes.	37	24.7	113	75.3	-	-	-	-	-	-	150	100

Table 2 above presents specific Information and Communication Technologies skills possessed by the respondents that enhance their use of various ICTs tools deployed to them for varied tasks or duties. According to the data contained in the table, it could be inferred that majority (150=100) of the respondents are computer literate. They were also asked to indicate whether they can conveniently use Microsoft Word Package for typing of document. Out of the total respondents (n=150) of the study, 90 representing 60.0% expressed that they can use the software effectively and efficiently for the typing of various word processing documents assigned to them. It should however be noted that majority (55.3%) of the sampled employees did not know how to use Microsoft Excel for processing of data or management. The sampled employees were also inquired to indicate whether they possessed needed accuracy for typing of documents. All (150=100) the respondents signified that they had the necessary accuracy for the typing of word documents. It could be deduced from the table that majority (110=73.3%) of the sampled employees had necessary skills for the creation and management of an e-mail account for special programmes and managing institutional mobile phone for bulk SMS service for meetings and special programmes (75.3%) within their department, unit or section. From the analysis, it could be inferred that the sampled employees had the needed skills that would assist them in solving various administrative duties assigned to them and having the susceptibility of increasing government administration efficiency in all ramifications.

The current findings add to the finding of Giuri, Torrisi and Zinovyeva (2008), who found evidence of complementarity between skills and organizational change, but did not find evidence of complementarity between ICT and skills. Moreover, their results showed that the hypothesis of full complementarity among ICT, human capital, and organizational change does not apply to small and medium firms. Instead, they discovered that organizational change yields negative effects on the complementarity between ICT and human capital. The finding, however express doubt on the position of Mbatha, Ocholla and Roux (2011) that the most common obstacles to the effective use of ICTs in government departments were found to be lack of skills or competence, the lack of an ICT policy, and the lack of proper planning for the adoption and diffusion of ICTs in the sector.

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	300.000 ^a	6	.000
Likelihood Ratio	281.784	6	.000
Linear-by-Linear Association	16.947	1	.000
N of Valid Cases	150		

a. 1 cells (8.3%) have expected count less than 5. The minimum expected count is 3.53.

The Chi-Square value of 300.000 at 6 degrees of freedom is significant at 0.000. Thus, the alternate research hypothesis is supported; there was statistical significant relationship between employees' ICTs skills and the state government administration efficiency or productivity.

CONCLUSION AND RECOMMENDATIONS

From the analysis and discussion presented above, it could be concluded that the state government under study deployed necessary ICTs tools to various departments, units or sections of the examined ministries for effective administration of both human and material resources and that, the employees possessed adequate information and communication technologies skills for the use of the deployed ICTs facilities. In line with this, the following recommendations are proffered for the beneficiaries of the study:

1. Other state and local governments in Nigeria should emulate Kaduna state government by deploying necessary ICTs tools to various ministries, departments and agencies so as to ensure adequate performance and enhanced productivity on the part of employees in all ramifications. The government under study and others should organize training for their staff on the use of varied sophisticated ICTs software that will assist them in solving complex administrative duties. Most importantly, software packages that will ease processing of mathematical data.
2. Senior employees should always deem it fit to assign their junior to complex tasks that require application of various ICTs hardware and software. This will help them in mastering modern techniques and improve their productivity as evidenced in this study.
3. Since citizens are now clamouring for quick services from the government, there is need for any government that wants to be relevant in terms of G2C ICTs application to equip her staff with necessary movable ICTs facilities not only office-stationed tools.
4. Awareness training should be conducted by government at all levels for citizens on the need to avail themselves opportunity of

various ICTs tools being employed by government's establishments for better service delivery. This will contribute to government's efforts of ensuring effective participation in governance on the part of the citizenry for the collective attainment of stated goals of the government.

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