

The Challenges of ICT Utilization for Effective and Efficient Administration in Private and Public Institutions

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ABSTRACT

Information and communication technology, currently and popularly known by the acronym ICT is now globally embraced. The speed at which ICT is developing is tremendous. As such, it has manifested virtually in all aspect of human existence as a tool to reduce work load, make administrative decisions more accurate, realizable and development oriented and even make life easier for the common man. The speed at which technology is developing is tremendous to the extent that even children of 6 years and above have been given a place in the world of technology. As such, no singular effort no matter how we try to explain it, can capture in a holistic sense the relevance of ICT in the modern day administrative process. This is why corporate bodies and non corporate entities are making more pronounced effort to acquaint their personnel with the development trends in the world of technology. leaning on this backdrop, this paper therefore tried to identify what constitute ICT, areas where it is proved to be most relevant, the challenges arising there-from and made recommendations on how to remedy the challenges arising from the use of modern day ICT. The Study used the secondary source as its main source of data collection. Books, articles from journals, newspapers and many other printed works were consulted.

Key words: Administration, effective, efficient, ICT, private and public institutions

INTRODUCTION

The effectiveness and efficiency of administrative functions in private and public institutions is now relying heavily on the acceleration of ICT innovations; particularly in the developed economies. Because of the level of success recorded in administrative functions as a result of introduction of ICT in such areas like comparative analysis, forecasting, decision making, planning, organizing, accounting and data storage and management; it has triggered off the attention of many Chief Executives to the need of hiring the services of ICT compliant personnel in order to swiftly achieve organizational and individual goals. Individual goals because, every worker has a dual personality and interest: To achieve organizational goals as well as his personal goals which may be in part, most likely, to develop and grow in his chosen career. Though it is punishable to present and pursue vigorously the personal goals first and more, than organizational goals. But factually, it is most difficult for an individual to perform his statutory function without some level of appreciable effort to defend and uphold his personal interest.

In developed economies, ICT is almost taking over the traditional function of some human resources especially those in the lower cadre. In the recent time, organizations tend to progress more rapidly depending on the availability of relevant ICT infrastructure, technical skills and user-time. Organizations with higher level of technological capability and easy adaptability to the innovations of the ICT world, exhibit the likelihood to succeed in their operations. Success in this context may be termed a political construct, having a divergent import and definitions by different leaders of public and private organisations. Achievement of personal goals could be termed success; likewise, the achievement of organisational goal, group goal even the quality of services rendered by the organisation to the public could all be used by different leaders to determine success.

In an educational institution, the quality of the students' result could be used to determine success; number of new intakes, infrastructural development even formulation and implementation of staff welfare scheme could be used by different Chief Executive at different time to determine organisational success. In a private enterprise, the profit margin and business expansion can as well denote success. However, ICT is seen by some scholars as driving to enforce the reforms undertaken by rich nations upon developing countries without focusing on the administrative, social, cultural, moral, environment implications and the resources (human and equipments) in place to accomplish the administrative task in the private and public sectors. ICT is the socio-economic driving force of private and

public institutions with relative cost-effective administrative processes against the time-taking traditional method of administration.

Obviously, technology, irrespective of how we embellish and profess it, is still posing challenges to individuals and cooperate bodies in the areas of software development, usage of the computer programmes, and application, understanding and interpretation of computer generated data as well as using the data in the performance of administrative functions in the developing economies. Nowadays in private and public organizations where clerical and administrative functions are expected to be effectively and efficiently performed, there appears to be high level of laxity resulting to inefficiency and ineffectiveness because of the wrong and or non use of the available ICT equipments in the offices, even sometimes the staff pay more attention to their private communication technologies during office hours rather than concentrating on the job that puts food on their tables. This situation calls for cautionary measures to be applied in order to re-direct the orientation of the employees to the best possible use of the available ICTs and the need to concentrate during work hours. In this light, this work stated the problems ICT introduced into the system and concluded after a careful review of the available literature that despite the challenges arising from the introduction of ICT in offices, it is contributing to individual and organizational development. However, some recommendation were made on the way forward so as to achieve a rapid growth in organizational productivity.

The objective of this study was to find out why ICT is contributing less to organizational growth in private and public institutions in Nigeria than expected. Specifically, the study will try to find out the relevance of ICT, the areas it has proved to be most relevant in organizational life, effort made so far to improve ICT and the challenges arising from its usage. The Study used the secondary source as its main source of data collection. Journals, books, articles, newspapers and many other printed works were consulted.

Conceptual Foundation

ICT is a broad terminology referring to multiple communication technologies which ranges from simple and complex, namely Cell Phone applications (SMS), Digital Cameras, Internet, Wireless (WiFi and WiMAN), VOIP, GPS, GIS, Convergence (data, voice, media), Digital radio etc (Shanker, 2008). Development of Information and Communication Technology (ICT) has transformed the contemporary business environment. It has led to new information economy which is digital in nature.

ICT can be independently created, but they also can be bought, copied or stolen. Commerce and warfare have been among the most important contributors to technological development and diffusion... Since ICTs are tools, their impact on organizations depends on the people who design what the system is supposed to do and on how people, in the end, use it. Thus, its impact also depends on what the user wants it to be rather than just on the technology itself. While the available technology defines the limit of what can and cannot be done in an organization to some extent, in the final analysis, how ICT are used tends to be socially determined by its managers (Haslam, Schafer & Beaudet 2009).

What actually is ICT? This question has no simple answer. ICT is one the phenomenon that has not been given a central definition. In the Nigerian context, the ICT that the common man know is the Smart phones, personal computer, digital cameras and a few others. The fact is that ICT has gone beyond this. What we see as ICT is a miniature of what is called ICT in the technologically advanced world like US, UK, Japan and China. According to Riley (2012), ICT is an acronym that stands for Information, Communication, Technology. However, apart from explaining an acronym, there is not a universally accepted definition of ICT. Why? Because the concepts, methods and applications involved in ICT are constantly evolving on an almost daily basis. It is difficult to keep up with the changes - they happen so fast. To him, a good way of understanding what ICT means is to consider all the uses of digital technology that already exist to help individuals, businesses and organizations use information.

On this note therefore, ICT can be defined as any technology that has the ability to receive data or capture image and video in digital format, process and or manipulate it, store and retrieve it when needed and transmit it electronically in a digital form or bring it out in print form to be circulated as information or evidence, aimed at enhancing job performance in an organisation. It could be privately or publicly owned or owned by the organisation where one is working. The smallest smart phone we use is among the cheapest and easily accessible ICT gadgets which can be found in the hands of many.

The Relevance of ICT in an Organization for Effectiveness and Efficiency

Undoubtedly, contemporary organization needs ICT infrastructure, manipulative skill and the ability to integrate the information in their daily work for maximum productivity. Gradually, organizations are now building strong database to avoid discontinuity in projects and programmes as a result of bridge in the flow of reliable information. Sequel to this, "the revolution in ICTs has profound implication for economic and social development. It has pervaded every aspect of human life whether it is health, education, economy, e-governance, entertainment etc. Dissemination, propagation and accessibility of these technologies are viewed to be integral to a country's development strategy. The most important benefit associated with the access to the new technologies is the increase in supply of information. Information is shared and disseminated to larger audience, secondly, it reduces the cost of production. Knowledge is produced, transmitted, accessed and shared at the minimum cost. With the reduction in the transactional costs, there is also a reduction in the degree of inefficiencies and uncertainties..." (Shanker, 2008).

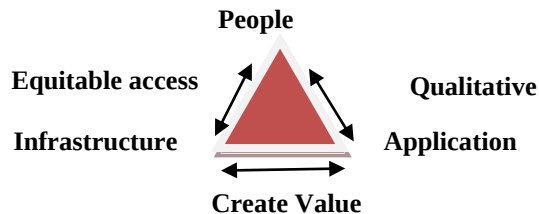


Figure 1. ICT for development framework

Source: NITA of Malaysia, adapted from Haslam, Schafer & Beaudet 2009.

What the diagram above denotes is that, the development framework of ICT in an organization is centered on people having equitable access to ICT infrastructure and using them in their daily activities in other to achieve qualitative transformation and raise the value of the organization. This in other words results to effectiveness and efficiency of the organization which not only raises value but also builds goodwill and increase profitability especially in a commercial venture. According to Onuoha & Benson-Emenike (2013), s

Information and communication technology (ICT) is a rapidly evolving economic sector with many directions of development...ICT application have large potential to enhance performance across the economy and society, as ICT directly influences many other business areas. ICT solution have been widely adopted by many companies and institution to improve their core business effectiveness and optimize costs. ICT affects most areas of economic activities, including sectors such as manufacturing, transport and energy, but also public administration. Fostering innovation in ICT and encouraging development and adoption of modern ICT solutions can significantly boost a country's economic growth, in short and long term in addition to improving overall productivity... (pp. 164-165).

Ict Development Index (Idi)

This is an index published by the United Nations International Telecommunication Union (ITU) based on internationally agreed information and communication technology (ICT) indicators. This makes it a valuable tool for benchmarking the most important indicators for measuring the information society. The IDI is a standard tool for government operators, development agencies, researchers and others to measure the digital divide and compare ICT performance within and across countries. According to Parodas (2014) Nigeria was ranked 133rd in the 2013 Global ICT Development Index (IDI), with an IDI value of 2.35. In 2012, it was ranked 135 with an IDI value of 2.14. This was a composite measurement that ranked 166 countries according to their level of ICT access, use and skills. The ICT Development Index is based on 11 ICT indicators, grouped in three clusters: Access, Use and Skill as shown in the table below.

Table 1: ICT Development Index and the Eleven Indicators

Access Sub-index	User Sub-index	Skill Sub-index
Fixed telephone subscriptions/100 inhabitants	Percentage of individuals using the internet	Adult literacy rate (% population 15 and older who can read and write simple statements with understanding and do simple arithmetic calculations)

Mobile cellular telephone subscription/100 inhabitants	Fixed (wired) broadband subscription per 100 inhabitants	Gross enrolment ratio secondary level (Total enrolment in a specific level of education as a percentage of all eligible)
International internet bandwidth (bits/s) per user	Wireless broadband subscription per 100 inhabitants (includes satellite, terrestrial fixed, and active mobile with a minimum download of 256 kbit/s)	Gross enrolment ratio tertiary level (total enrolment in a specific level of education as a percentage of all eligible)
Percentage of households with a computer		
Percentage of household with internet access		

Source: Adapted from:

ICT Development Index. http://en.m.wikipedia.org/wiki/ICT_Development_index

The access sub-index is concerned with the readiness of the infrastructure and availability of it so that people can access and use it. Here, the concentration is the administrative functionaries who have smart-mobile phone, personal computer and internet access. The user sub-index on the other hand is concerned with the percentage of the individuals who can use the ICT infrastructure especially the internet, the fixed and wireless broadband subscriptions in the performance of their duties.

The skill sub-index is pointing at the skill or capability of an individual to use or manipulate the ICT infrastructure so as to get the desired result. It is counted as a strong indispensable input indicator as it considers the percentage of the adult population who can read and write simple statements with understanding and do simple arithmetic. It considers also, the enrolment ratio in the Nigerian educational system. Nigeria is not among the top 30 countries as ranked by the ICT development index in 2013. Denmark came 1st in the ranking with a percentage score of 8.86, South Korea came 2nd in the list with a percentage score of 8.85 while Sweden came 3rd with a percentage score of 8.67.

In terms of regional comparison, Europe's average IDI value of 7.14 remains well ahead of the next best performing region, the Commonwealth of Independent States (CIS - 5.33), followed by the Americas (4.86), Asia & the Pacific (4.57), the Arab States (4.55), and Africa at 2.31. In 2013, Measuring the Information Society Report of the International Communication Union placed Nigeria in the regional ranking at 14th position in Africa. Percentage of household with internet access, by level of development and by region is as follows;

Europe	78.0%
The Americas	57.4%
CIS	53.0%
world	43.6%
Arab States	36.0%
Asia and the Pacific	35.9%
Africa	11.1 %

It is obvious that Africa is ranked low in global ranking; so is Nigeria in regional ranking. According to Akwaja (2014), "the latest data from IDI shows that over three billion people are now online and information and communication technology (ICT) growth remains buoyant in just about every country worldwide. Internet use continues to grow steadily at 6.6 per cent globally in 2014 (3.3 per cent developed countries, 8.7 per cent in the developing nation). the number of internet users in developing countries has doubled in five years (2009-2014), with two third of all people online now living in the developing world. Of the 4.3 billion people not yet using the internet, 90 per cent live in developing countries. In the world's 42 Least Connected Countries (LCC), which are home to 2.5 billion people, access to ICT remains largely out of reach, particularly for these countries with large rural population". The Secretary-General of the International Telecommunications Union, Dr Hamadoun Toure as quoted by Akwaja

(2014), said, "ICT have the potential to make the world a much better place, in particular for those who are the poorest and most disenfranchised, including women, youth, and those with disabilities. This important report is a critical part of the global ICT development process...".

However, the relevance of ICT in all of human clusters can never be undermined. that is why the effort to access and use it by individual, organisations and nations is on persistency. Relatively, Vernous, (2007), posited that;

in the last decade, much research in information system has presented information technology as the fastest and most efficient way for an organization to go towards performance and efficiency. The 21st century was claimed as the digital revolution era. At the opening session of the first World Summit of Information Society (WSIS 2003), the Secretary-General of the United Nations, Kofi Annan, stated that we are going through a historic transformation in the way we live, learn, work, communicate and do business...Technology has produced the information age. Such terms like information age, information society, and knowledge society are often used to describe the deep-seated impact of the ICT on our lives. Experts argue that we are living in a new industrial revolution more fundamental than the former (4)

In spite of the seemingly prophetic revelations above, it has been observed that ICT application are most relevant and effective in variety areas of administrative work. They have shown that with ICT, administrative work can be made more easy and faster. The table below shows the applications, where they can be used and their examples.

TABLE 2: Standard Office Application, Examples and Their Uses

Application	Example	Use
Word processor	Microsoft word, word perfect	Write letters, reports
	Microsoft Excel	Analyze financial information, calculations, create forecasting models etc
Spreadsheets		
Database software	Oracle, Microsoft SQL server, Access	Managing data in many forms, from basic lists Customer contact through to complex materials (e.g. catalogue)
Presentation software	Microsoft power point	Make presentation, either directly using computer screen or data projector. Publish in digital format via e-mail or over the internet.
Desktop publishing	Adobe indesign, Quark Express, Microsoft publisher	Produce newsletters, magazines and other complex documents.
Graphic software	Adobe photoshop and illustrator	Create and edit images such as logos, drawings or pictures for use in DTP, websites or other publications
Accounting package	Sage, Oracle	Manage an organization's accounts including revenue/sales, purchases, bank account etc
Computer Aided Design	Computer Aided Design	Used to assist the design process of architectural, engineering, electronics and roadways drawings.
Customer Relations management		Software that allows business to better understand their customer by collecting and analyzing data on them such as their product preferences, buying habits etc. Often linked to software applications that run call centers and loyalty cards for example.

Source: Riley, J. (2012). ICT - What is it? ICT, business and technology. retrieved from http://tutor2u.net/business/ict/intro_what_is_ict.htm

What this implies is that if Nigeria could practically improve in its ranking both regionally and globally, it will result to improvement in the public service sector which will in turn reflect in the development of the planning process, better programmes design and reliable data for policy and administrative efficiency.

Government Efforts to Promote ICT at The Grass Root Level

The knowledge and skills an individual requires to perform a function be it administrative or otherwise effectively and efficiently is never built in one day. It starts building from childhood; perhaps more, when the individual enrolls into the formal educational system. This could be said to start from the primary school in Nigeria. Against this understanding, government made some policy enactments to ensure that the Nigerian school age population is not left out in the ICT world. In other words, government made a bold step to ensure that the Nigerian school-age population starts to appreciate and understand the value of ICT very early in life. That was why, in recognition of ICT as an instrument of fast-tracking development not only in administration but in the holistic national entity and the need to introduce ICT early in our educational curriculum, the National Policy on Education (2004) in section 4 (19m) stated that "In recognition of the prominent role of Information and Communication Technology in advancing knowledge and skills necessary for effective functioning in the modern world, there is urgent need to integrate Information and Communication Technology (ICT) into education in Nigeria. In section 5 (30f), the same policy succinctly put that "Government shall provide necessary infrastructure and training for the integration of ICT in the school system in recognition of the role of ICT in advancing knowledge and skills in the modern world".

This policy statement is adequate and capable of serving its purpose if religiously implemented but the truth is that it is a toothless bulldog, because in most of our public primary and secondary schools that have existed for more than 20 years, there don't seem to be the presence of a desktop computer system let alone other sophisticated ICT infrastructure. In the tertiary institutions, except those who are studying computer related courses, students hardly go for computer lectures and practicum. Some believe that since they can manipulate their smart, they can as well manipulate the computer and any gadget that functions alike the computer. While others see it worrisome and difficult to understand. This is mostly prevalent in schools located in the rural areas. As a result of this, in many

offices you find some staff who lack the manipulative skill to effectively use the computer to produce the desired result for organizational productivity, because many of them passed through these schools in the rural areas.

Challenges Arising from The Use of ICT in Administrative Work

The young people of today in the private and public institutions seems to be absorbing without consideration, the knowledge, skills, and attitudes they learn from the media in a very swift manner. Some of these skills will be highly productive if applied with caution while others will be very destructive only by attempting to apply them in the work environment. They have embraced some of the ideas and ways of thinking promoted by the media culture thereby encapsulating themselves in the habit of not being able to model their lives, hopes and aspiration according to the conventional principles and standards. Social media has affected the dress code, body carriage, even the language of our social interactions. Online gaming and betting, online trading and many new online businesses including '9ja-bet' and many new innovations have raised the ambition of our young workers to the '**get-rich-quick**' syndrome; forgetting that hard work and dedication begets success. It has reduced the level of concentration on office work as a result of the abuse and overuse of the digital devices even during office hours. This is mainly the reason for the introduction and adoption of the "**Digital Detox**" by such countries like China, South Korea, United Kingdom and United States to deal with misuse and abuse of the digital technology devices. Digital Detox is a new centre established to control the excessive use of technological infrastructure by denying such individuals access to the internet, and digital devices for a couple of days, weeks or months depending on the level of addiction to enable them think and perform certain actions without the assistance of the digital technology and start learning gradually to depend less on digital technology for the performance of all functions even in the office. Nevertheless, many still subscribe that it is playing a prominent and useful role in employment, social life and entertainment.

The term "digital technology" according to Awake (2015 April) means electronic devices that access or transmit data, including e-mails, phone calls, text messages, videos, music, games, and photos. Some people have their phones as their best companions and would strive to have their phones around them always. They may even go seemingly crazy if they find themselves in an area where there is poor network for less than an hour. All through the night, some wake up at intervals to check their digital devices for messages, updates, perhaps chat with online friends and or exchange music, videos, pictures; some of which are pornographic. The memories of these and others, they carry to work the next day which automatically results to low productivity because of distorted attention. They are people who experience withdrawal symptoms when they are separated from their digital companion. With regards to the above scenario, arguments are still on about the most suitable word to use to describe these behavioural pattern: addictive, problematic, compulsive or obsessive are some of the words under consideration.

Specifically, it has resulted to the abuse of the ICT infrastructure which are available to us as a member of staff of a particular work organization. General indiscipline, insubordination and unproductive smartness have now taken centre stage in the superior/subordinate relationship thereby bringing up unnecessary argument, punishment and waste of man-hour at the detriment of the organization. Above all, introduction of ICT has increased the rate at which people now tell lies without considering the moral and ethical implications. Yet, the ITU's report estimated that by the end of 2014, there would be seven billion mobile subscriptions, roughly corresponding to the total global population. But it warns that everyone is connected; instead, many users have multitude subscriptions, with global growth figures sometimes translating into little real improvement in the level of connectivity of those at the very bottom of the pyramid. By the time this number of people gets mobile subscription, it means that greater number of public servants will be concentrating on manipulating their mobile phone that doing the clerical work in the office.

CONCLUSION

In the recent time, sustainable development programmes and the enabling policy frameworks are concentrating on innovations, diversification, entrepreneurship, massive participation and women empowerment. Organizations - private and public have also started embracing the opportunities emerging as the synergy-input of ICT and human administrative skill to actualize goals. ICT has been recognized to play vital role as the key enabling technology assisting the human resource to achieve effectiveness and efficiency in the organization as well as promoting the attainment of sustainable development by being a reliable data bank and an indispensable tool for calculating the development statistics using the acceptable indices and formula.

Irrespective of its obvious challenges, it has greatly improved organizational productivity through the generation of fairly reliable data, saving and retrieving of the data which the individual worker uses to work as and when needed. "The challenges brought by new technologies have significant effects in the way people live, work and play. Easy communication promotes instant access to vast array of data and rapid transformation. In the Nigerian situation, most economic and social activities which were traditionally implemented, have been replaced with computer system that generate more accurate data and efficient services. The implication is that people now get what they want more quickly especially for economic purposes" (and for administrative easiness). (Akuma, & Nwali, 2009)

RECOMMENDATIONS

There is the ever growing need for various department of private and public institutions in all the sectors of the economy to fully adopt ICT as their main instrument of work and engage their staff in in-service training on the application of ICT in their daily work; as a swift way of enthroning effectiveness and efficiency in order to improve productivity. But care must be taken so that attraction will not lead to addiction because too much of even good thing can be harmful

Proper implementation of the policy option as enshrined in the National Policy on Education 2004 edition sections 4 and 5 should be pursued vigorously. ICT studies should be made a compulsory component of the primary and secondary education curriculum while in the tertiary institutions, it should be made a general studies course at all levels of higher learning. This will arm our teeming young school leavers to be employable and be able to cope with constant changes that occur in the ICT world

At regular intervals, adequate maintenance culture should be introduced and maintained by organizations. This will prevent loss of information and data which have become a necessary ingredient of administrative work. What this implies is that, as a rule, organisations should have a team of IT support workers/administrators on full time employment. They should be assigned to be going around on a routine check. In such organisations where the staff strength is below 20, a day in every month should be set aside to enable them undertake the tasks detailed below.

- i Oversee network and server (if applicable and appropriate)
- ii Ensure data is backed up on regular basis
- iii Oversee computer security and antivirus update etc
- iv carrying out computer housekeeping tasks
- v Providing IT support to computer users within the office
- vi First port of call and initial troubleshooting of IT problems and resolving them if possible
- vii logging all IT problems and resolution if possible
- viii liaising with external support company
- ix overseeing file management on centralized resources (e.g. server) or on individual workstations
- x Inducting new staff on IT systems
- xi keeping website update or liaising with whoever does this
- xii keeping inventory of hardware and maintenance records
- xiii Ensuring all software is properly licensed
- xiv providing input into IT strategy and annual IT budget
- xv Input into one-off projects such as database development
- xvi Input into IT acceptable use policy development
- xvii Keep abreast of IT technology, maintain library of information
- xviii Advising on training needs and courses available

where need be, have a person trained in the basic tasks such as backing up so that they can cover the administrator for holidays, sickness and emergencies and so on. (adapted from Lasa Information System Team 2004)

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