INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) FOR SUSTAINABLE ECONOMIC GROWTH AND DEVELEMENT IN NIGERIA.

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Abstract
The impacts of Information and Communication Technology (ICT) in man's existence have greatly increased over the years in the area of provision of comfort, opportunities and potential wealth. This paper examined the concept of information and Communication Technology for Sustainable Economic Growth and Development in Nigeria. It ascertains the impact of ICT on Nigeria's sustainable economic growth and development exploring the various possible ways a nation can engage this ICT tools in attaining sustainable economic growth and development in Nigeria education sector. The paper also assessed the job and wealth creation impact of the recent revolution in telecommunication industry; some Nigerians for instance are now building careers in Global system for mobile communication (GSM) phones repairs, marketing of GSM phone accessories, affordable internet services provision, etc. there are also various uses of these tools in education delivery, consequence upon that, it cannot be examined without considering the future of some factors such as the government in creating enabling environment and infrastructures that will sustain economic growth and development. Recommendation and conclusions were made by suggesting curriculum planners in various areas to include much ICT experts to enable effective use of ICT tools in sustaining economic growth and development in Nigeria.
Key words: Information, communication, Technology, Economic growth, Development

Introductions

Information and Communication Technology (ICT) is a veritable instrument that can be used in sustaining economic growth and development in Nigerian educational sector and future directions. The philosophy of ICT in Nigerian education sector geared towards bringing in equal opportunities to all citizens so that appropriate skills, abilities and competence can be

developed in individuals to live in, contribute meaningfully to the economic growth and development of the nation in educational sector for future directions.

Specifically, man and his environment is a composite of an array of challenges and potentials, computing in whatever field medicine, science, research, business and industry is reached directly or indirectly into various facets of our society, thereby, without loss of generality has shrunk the world into such a compactness that no part can afford to live in isolation. Consequently, there is no need contradicting the fact that, Nigeria and indeed the world community is a Global village.

This is clearly stated by the use of information and communication technology, indeed, High-Tech, namely: computer network, internet facilities, global systems for mobile communication (GSM) and the electronic media have, in no small measure, bridged the digital device, security network, enhanced social political and economic awareness. By measuring intro-tech awareness, the entire nerve psyche of the nation is articulated and conscientised thereby contributing to the wellbeing of Nigerian educational sector and future directions.

The role of information and communication technology play in man's existence, over the years, have increased tremendously beyond provision of comfort, continuous opportunities and potential wealth. Also, there is no gainsaying that technology has become the principal driver of globalization. Today, business transactions can be initiated at one point of the globe and concluded at the other at optimum speed. The internet has virtually made the need for expensive corporate headquarters in many developed countries of the world somewhat obsolete.

Concept of (ICT) and sustainable economic growth and development

Information refers to messages, facts or details about something or somebody. Information Technology implies the use of media equipment to collecting, processing, sorting analysis and sending out information.

Williams and Sawyer (2001) cited in Ater, Tiough and Nevkar (2006) view information Technology (IT) as the technology that merges computing with high speed communications. Links carrying data sound and video. It is a communication process in which information (input) is recorded, stored and retrieved, processed for decision making (output) on planning operation and controlling.

Thus, IT guarantees effective and efficient collection of information for easy transmission appropriate areas for immediate use in planning, implementation and evaluation, processes in educational sectors.
Communication is the means whereby people in organization exchange information regarding the operations of an enterprise; it is the interchange of ideas, facts, of words, letters and symbols.

Technology is a systematic integrated process for delaminating and analyzing problems, devising, implementing, managing, controlling, evaluating and finding solutions to the problems. Nwachukwu (2012), sees technology as "man using his rational faculties to devise techniques and modify his environment", information and communication technology (ICT) is seen to be computer, auxiliary equipment, software and firmware (hardware) and similar procedures, services and related resources. It includes any equipment or interconnected

system or sub system of acquisition, storage, manipulation, management, movement control, display, switching, interchange, transmission or reception of data or information.

Information and communication technology is therefore the systematic application of computer and other technologies to acquire organized process, store, retrieve and disseminate information to bring about effective exchange of information in communication. It has opened the door of knowledge for information seekers and shortened the ever wide distances that existed between the information source and the seekers, which has also brought about new ways of doing things in all sectors of every society, Nigeria inclusive.

Thus, ICT has globalized the world, Ayeni (2005), ICT has reduced the world to a global village, turning all parts of the world to everybody's neighbourhood. Most importantly, today, information and communication technology is the glue that holds organizations and societies together. It is an arrow in the manager is quiver.

Sustainable economic growth and development has been defined by International Institute of Sustainable Development (2013) as a development that meets the need of the present without compromising the ability of future generation to meet their own needs.
In same view, economic growth has been defined as a qualitative increase in the output of a nation from all productive sector of the economy. It is a state in which the various sectors of the economy are operating at full capacity to provide a better life for the citizens.

Wikipedia (n.d) sustainable development has to do with human development in which resources are used to meet human needs, while ensuring the sustainability of natural system and the environment, so that these needs can be met not only in the present but also for future directives.

Aims and Objectives of Information and Communication Technology (ICT)

Information Technology built on reliable human resources and infrastructure constitutes the fundamental tools and means of assessing, planning and managing development changes meant to achieve a sustainable political and socio economic growth.

Below are the Aims of ICT;

1. To ensure that information technology resources are readily available to promote efficient economic growth and development
2. To guarantee that the country benefits maximally and contribute meaningfully by providing the global solution to the challenges of information age
3. To empower Nigerians to participate in software and ICT development
4. To encourage local production of and manufacture of IT components in a competitive manager
5. To establish and develop IT infrastructure and maximize its use nationwide
6. To enhance planning mechanism and forecasting for the development of infrastructure
7. To empower the youths with IT skills and prepare them for global competitiveness
8. To integrate IT into the main stream of education and training

Nigerian Government, Educational Sector and ICT Policies

The Federal executive council approved the national Information Technology Policy in March 2001. This move subsequently led to the establishment of the National information Technology Development Agency (NITDA). Government recognizes Information and

Communication Technology (ICT) as a strategic imperative for sustainable economic growth and development and taking cognizance of its immense benefits.

The federal government of Nigeria is very much interested in inculcating (ICT) into educational sector of the country; that is why it spelt out certain rules, policies and guidelines in a document called Nigerian economic growth policy for information and communication technology.

The world educational sector has gone global. The 21st century education is talked about electronic learning (e-learning and e-commerce). One can stay in Nigeria and order for goods abroad and make payments through the computer (online-shopping). One can study abroad by accessing information which abounds in the internet.

Also, one can apply for job on-line and get employment through the internet without first visiting the company. However, government resolved to provide considerable economic growth both financial and otherwise, for the establishment of the following:

- The establishment of National Information Technology Development Fund
- The establishment of National Information Development Agency (NIDA)
- Information Technology Education and Training Sector
- Centres for IT development in its parts
- Facilities for Education System
- Establishment of IT Centres, research and development facilities in specially selected tertiary institutions
- Establishment of mobile internet for IT training in rural scheme

Source: Tell Communication Limited No. 27, July 2008 edition. The Big Bang; seven years of telecons revolution in Nigeria.

Nigeria's ICT Revolution in Telecons Industry

Infact, information communication has been an indispensible tool in the entire dispute that Telecommunication and Information Technology create an essential impact in this process. This is obviously why development in this vital sector over the years have been phenomena all over the world. In effect the emerging trends in the social income economic growth show high premium and is being placed on information and communication technology by nation, organizations and homes.

After years of military interregnum and gross underdevelopment; the nation   telecons and IT industry was liberated with return of democracy in 1999, since then, Nigeria has been reaping from this viable sector thus, saying goodbye to the years of development inertia and moribund economy.

The deregulation of the telecons sector, which has earlier begun in 1992 to evolutional dimension in 2001 with the granting of the global system for mobile communication, GSM, license three providers namely Airtel; then known as Zain, MTN and M-Tel. This was followed by 2003 Second National Operator, SNO in 2003, Globacom and the Universal Access Service Licence of 2006. All these are aside from licensing of fixed telephony providers, VSAT service providers, internet service providers, and so on.

Undoubtedly, the revolution in ICT sectors has impacted greatly in the nation's economic growth and social life. The telephony ICT sector has in the last seven years, thrown up

some two million jobs, about 10 present of which are direct employment while support services and product, form other sector. Banking, manufacturing, advertising, insurance, and many others are sprouting up almost on a daily basis. This is indeed a breakthrough for a nation with cultural economy.

According to Derek (2008), Nigeria ICT industry has generated more than one million jobs since it was totally liberalized by the administration of former president Olusegun Obasanjo. He added that for most poor people, the mobile phone has become a lifeline and a bridge through which they can get out of the scourge of poverty.

In the same direction, that the GSM roll-outs have had more impacts on job creation than any economic policy of government in the last decade. Also thousands of Nigerians have been directly employed in these companies and the elevation of human capital stock of the country through massive investment in the training of employees of the companies, support enterprise and service organizations have themselves blossomed.

Nigeria Careers Building in ICT Industry

A milestone was achieved in May 20 2004, when former president Obasnjo commissioned the ultra-modern Digital Bridge Institution (DBI) in Utako, Abuja, established by Nigerian Careers Commission (NCC) as an International Centre for advanced telecommunication studies.

Apart from training technical manpower, they also train personnel in other specialized areas such as economic analysis, financial planning law, arbitration, mediation, interconnection, human resources and consultancy services.

Career aspirants who which to build a successful career in ICT can now breathe a sign of relief, in that education is the most potent weapon for empowerment. In its ninth year not less than 29 education centres were spread across the length and breadth of the country, the National Institute for Information Technology (NIIT), has grown to be a leading IT education company in Nigeria, NIIT has been working with its partners to create a skilled manpower pool for the global IT industry.

By the year 2020, NIIT is creating a large pool of trained ICT manpower in 32 countries which includes Nigeria through its globally acclaimed curriculum, reach and delivery. **Source:** the Big Bang: Seven years of Telecoms Revolution in Nigeria, No. 27, July 2008 edition, on Telecommunication Limited.

NIIT is acknowledged as the leading IT training and education centre in the country, offering the latest IT programmes fashioned to the industry requirement and national vendor certification.

In many countries, Nigeria in particular, NIIT, provides Information Technology (IT) education to individuals, offers customized training solution for corporate organization, and has partnership with leading universities and schools to carter for the training needs of their students, through the NIIT inside model. Although, to build awareness about the least tools and technologies, careers in IT and the need to be computer literate, the company has launched several initiatives in the country and it has become the major tool in empowering Nigerians to make their future look bright.

Possible Hindrance to ICT Integration in Sustaining Economic and Development in Nigerian Educational Sector

Nigeria being a developing country and educationally backward, encountered a lot of problems in trying to integrate ICT sustaining economic growth and development.

The Following are among the numerous problems:
1. **Supply of Electricity:** The state of power supply in Nigeria is very poor and epileptic. Therefore one cannot make use of ICT gadgets all the time.
2. **Inadequate Capital Funding:** It will require huge amount of money to fully integrate computer literacy in the rural areas. It is capital intensive.
3. **Lack of Perception of Benefits:** Most people are ignorant of the huge benefits offered by the knowledge of ICT, therefore may not bother to acquire the knowledge.
4. **Absence of Internet Facilities:** Internet facilities are absent in the most part of the country, especially in some rural areas. This makes it impossible for sustaining growth and development to embrace ICT.

Conclusion

Information Communication Technology (ICT) should be viewed as a tool for managing and transforming economic growth and development. The acquisition of ICT is of tremendous benefit for sustaining economic growth and development and the globalized nature of the world, makes it imperative for everyone to acquire ICT knowledge, this will go a long way to our educational sector for economic growth and sustenance of our nation.

In the same view, there is no doubt that the recent revolution in the ICT industry has impacted greatly on the economy of Nigeria: like it has in many developing countries of Asia and Africa. But inadequate ICT infrastructure, lack of funding, as well as absence of appropriate legal framework among others, has inadvertently stunted the nation's technological economic growth and development. In order to be relevant in the global IT market and become exporters of IT skills, services and equipment, there is urgent need to develop the required manpower which unfortunately, the nation's tertiary institutions are not adequately equipped for:

Therefore, one can affirm that ICT is indispensible and Nigeria can only sustain nationhood in all spheres of human endeavour if ICT is systematically brought into the schemes of the nation's policy.

Recommendation

Having discussed the need to inculcate ICT in different part of the countries there is no gainsaying the act that Information Communication Technology is a vital tool for economic growth and development in Nigeria owing to its impact on the economy. It si also recommended that high premium be accorded information and communication technology by the government and private sector in order to be effectively put its economic growth and development potentials to good use.

Therefore, ICT experts should be included in curriculum planners and policy makers on matters regarding; information and communication technology. Educational sectors should employ more of the ICT personnel for more effectiveness and efficiency. Also effort should be

made to provide infrastructure which supports ICT e.g electricity fund should be made available for training ICT personnel.

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