



ICT and Its Impact On National Development in Nigeria – A Conceptual Analysis

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ABSTRACT

This paper explains the concept of Information and communication Technology (ICT), and its impacts in the Nigerian economy; with highlights on the merits of ICT in economic advancement as well as recommendations geared towards harnessing ICT for the overall development of the socioeconomic and political status of Nigeria. It is now widely accepted that Information and Communication Technologies (ICT) have an important role in national development, much of this state is due to lack of clarity on how ICT is conceptualized in this context. ICT is fast becoming the largest distribution platform for providing public and private facilities and services to millions of people. The value of information and accumulated knowledge within the country is therefore a strong point for national economic growth. In this paper, we attempt to further clarify how ICT is conceptualized in development and its impact on the economy of the nation.

Keywords: ICT, National Development, Economy, information, Technology, GDP

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1. INTRODUCTION

The world is in the midst of a general-purpose technological revolution. Although this revolution has taken many names, there is little doubt that it is a technological revolution, or a new techno-economic paradigm, brought about by a set of new information and communication technologies (ICT). The ongoing ICT revolution, combined with the forces of globalization, has provoked the hopes and fears of countries at all levels of development, to leapfrog to the new economy, or be left out of the loop. A growing number of developing countries have been inspired by the success stories of fast growing exports of ICT services from a diverse group of countries such as Singapore, India, Taiwan, China, Korea, Malaysia, Ireland, Israel, and Finland. As a result, the response of many governments is to formulate national ICT policies and strategies, where ICT is treated mainly as a sector or industry (Williams Emeka, 2011).

Further research on ICT in Nigeria has shown appalling reports on a disorganized system of governance where there is no effective and coherent national policy implementation on ICT advancement nationwide. Nigeria, like the rest of the world must embrace the rapid changes in information and communication technology (ICT) so as not to be disengaged from globalization and economic development trends, and Nigeria must quickly join the ICT improvement race before it is left behind in the spheres of industrialization.



2. LITERATURE REVIEW

Nigeria is dramatically evolving towards an emerging economy and she is desirous of becoming one of the World's twenty biggest economies by 2020. Nigeria has encapsulated that desire into a strategic vision tagged 'Vision 20:2020' (Federal Republic of Nigeria 2005). This vision is seen in certain circles as the latest socio-economic development blueprint of the country. The vision promises improvements in all-round development in the most critical sectors of the economy. The vision is also laden with the intent to reduce the burden of poverty on the populace and to massively roll out infrastructure in large magnitudes. (Isizoh A.N et al, 2013)

Nigeria's projection perhaps, is neither undue optimism nor an over-ambitious target when viewed upon the backdrop of the country being Africa's most populous country with an estimated population of over 193 million people and richly endowed with vast mineral resources. However, as promising as the vision seems, without commensurate investments in science and technology and the adoption of appropriate technologies to drive that vision, it might as well go the way of previous development plans initiated by the country since independence in 1960. Therefore Nigeria's vision of becoming among one of the 20 most developed industrialized nations in the world would remain a mirage without Information communication Technology (NITDA, 2013).

According to European Commission, the importance of ICT lies less in the technology itself than in its ability to create greater access to information and communication in underserved population. Many countries around the world have established organizations for the promotion of ICT, because it is feared that unless technologically advanced areas have a chance to catch up, the increasing technological advances in developed nations will only serve to exacerbate the already existing economic gap between technological "have" and "have not" areas. Internationally, the United Nations actively promote ICT for development (ICT4D) as a means of bridging the digital divide.

2.1 A Glance at The Economy of Nigeria

Nigeria is a middle-income, mixed economy and emerging market, with expanding manufacturing, financial, service, communications, technology and entertainment sectors. It is ranked as the 27th-largest economy in the world in terms of nominal GDP, and the 22nd-largest in terms of purchasing power parity. It is the largest economy in Africa and top oil producer with a population of over 193 million people; its re-emergent manufacturing sector became the largest on the continent in 2013, and it produces a large proportion of goods and services for the West African subcontinent (Source: Africa Facts Checks). Consequently, with the population of the country at over 193million people, Nigeria is the most populous nation in Africa. Despite her wealth, 70 percent of Nigerians lives in poverty even with its largest source of wealth which is the Oil sector. Although oil revenues contribute 2/3 of state revenues, oil only contributes about 9% to the GDP. Nigeria produces only about 2.7% of the world's oil supply (in comparison, Saudi Arabia produces 12.9%, Russia produces 12.7% and the United States produces 8.6%). Although the petroleum sector is important, as government revenues still heavily rely on this sector, it remains a small part of the country's overall economy. In 2014, Nigeria changed its economic analysis to account for rapidly growing contributors to its GDP, such as telecommunications (The ICT Sector), banking, and its film/entertainment industry (NBS 2017).

Basically speaking, since the change in economic analysis to the growing sectors contributing to the GDP of the country, there has been major rise in the performance of these sectors especially in the ICT sector, taking the Telecommunication industry of the ICT sector as a major example, it has recorded contribution to the GDP has high as 10.43% in Q2 2018 and 9.85% in Q4 2018 (Source: Nigeria Communication Commission).

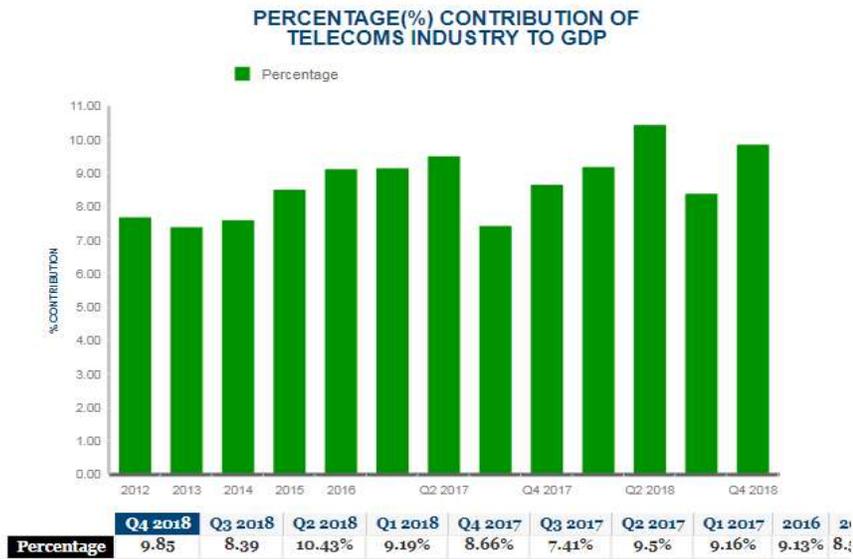


Fig. 1: Percentage Contribution of the Telecommunication Industry to GDP (Source: NCC 2019)

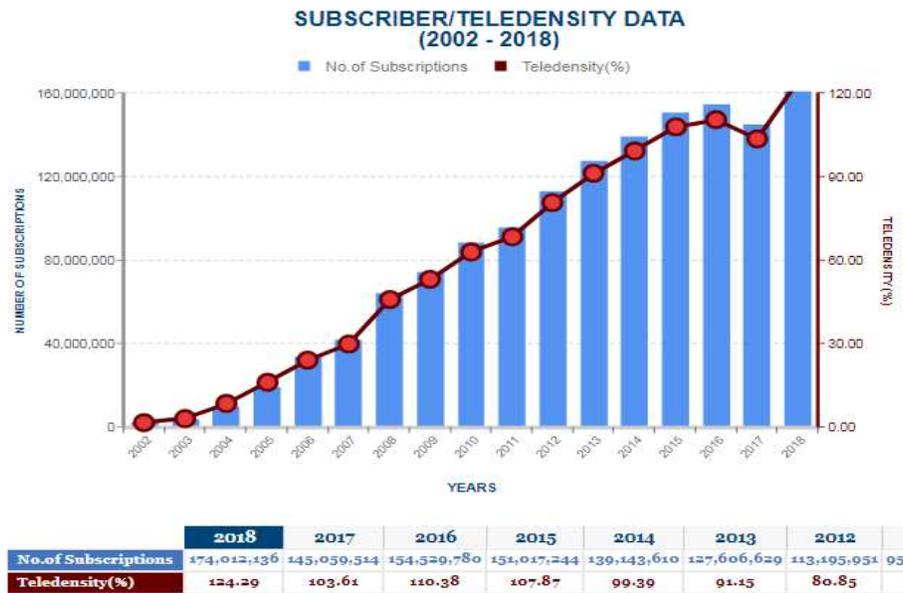


Fig. 2: Internet Subscribers Data 2002- 2018 (Source: NCC 2019)



Also taking a look at the rising growth of internet users/ subscribers in the country, we could deduce that ICT has come to stay, and the government of the nation has to take the advantage for more improvement in the economy of the Nation if the country still wants the Vision 20:2020 to come alive.

The Information and Communication sector is composed of the four activities of Telecommunications and Information Services; Publishing; Motion Picture, Sound Recording and Music Production; and Broadcasting. In nominal terms, the fourth quarter of 2018 saw the sector grow by 14.82% (year-on-year), or 15.37% points higher than the growth rate recorded in Q4 2017, and 1.41% points higher than the growth rate recorded in the preceding quarter. The quarter on quarter growth rate recorded in the current quarter was 24.20%. In 2018, the sector grew by 10.77% in nominal terms. By contribution, the Information and Communications sector contributed 10.23% to total nominal GDP in Q4 2018, slightly higher than its contribution of 10.04% in Q4 2017 and 8.70% in Q3 2018. For 2018, annual contribution to nominal GDP was 10.16%. In real terms, the sector recorded a growth rate of 13.20% in Q4 2018, representing an increase of 14.65% points when compared to Q4 2017. Quarter on quarter, the sector exhibited a real GDP growth rate of 23.75%. For 2018, real GDP growth rate stood at 9.65%. By contribution, the sector accounted for 12.40% of total real GDP in Q4 2018 and 12.22% of total real GDP in 2018. (NBS 2019)

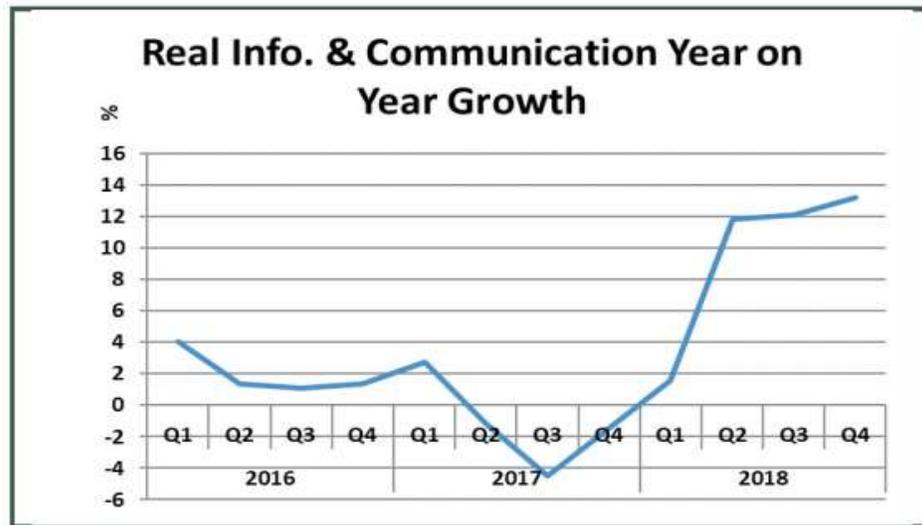


Fig 3: ICT Year on Year Growth (Source: NBS 2019)

3. MERIT OF ICT TO NIGERIA'S ECONOMY

Nigeria, like the rest of the world recognized the globalization and significance of information and communication technology (ICT) to meet the growing demands of work, business, production and services in different sectors of the economy. Such ICT tools include computers, multimedia equipment, assistive technology devices for exceptional individuals and other technological gadgets (Williams Emeka 2011). Some of the advantages/merits of ICT to the Nigeria Economy include the following:



3.1 E-Health and M-Health (ICT Health)

ICT in Healthcare is powerful in monitoring the outbreak and spread of disease, disseminating health information about health-promoting and disease-preventing, training and long distance support to health care practitioners. E-Health is defined as the use of ICT in provision of health care services. This means ICT can be used in various health care functions such as clinical, educational, research and administrative regardless of geographical settings (Abolade & Durosini, 2018). M-Health (Mobile Health) extends the efficiency and accuracy of the already available health systems through the use of electronic devices such as PDAs and mobile telephone networks to improve functions (such as reporting procedure) of the health systems.

3.2 Electronic Governance

The questions that usually come to mind are: what is the role of Information Communication Technology in governance? Is government doing enough to empower her people through ICT? In Nigeria, many government agencies are now using websites to provide information on the activities of government. Today people of Nigeria can go to the internet and get any information they want. Jobs, contracts, and government activities are posted to websites for public knowledge. This has greatly improved productivity, thereby making the economy of Nigeria high. Nigerians can now ask questions about public issues and make their views known to government. Therefore E-Government must be customer driven and services oriented, meeting the needs of citizens and improving the quality of life while the government should understand ICT and their implication to government and society at large (Isizoh A.N et al, 2013).

3.3 Employment Opportunities

Also, the use of ICT to bring new employment for youths and migrant workers has also given opportunity to develop new ideas in the technology via the education system, training facilities and affordable access to computers. In this way, youths have an opportunity to be self-employed, and they are exposed to entrepreneurship through the use of information and communication technology. The demand of technology is seen to be a reality in creating employment opportunity for young people, where the youths will show their interest and creativity in software applications, bio-engineering, digital media, and mobile applications, which will attract young people's creativity. Social interactions through the use of information and communication technology will help reliable and creative business ideas in the next one to three years, so that they can respond more effectively in all aspects of learning needed, and to document the best information and communication technology practices among the youths for future benefit.

3.4 E-Business and Services in Nigeria

Doing the business online has emerged as a practice in Nigeria. Though the industry is in nascent stage but has shown tremendous potential over last few years especially after competitive growth in banking sector. The growing young, educated and technology friendly population has contributed largely in growing trends of e-business in the country. Popular E-Commerce models Business to Business (B2B), Business to Customer (B2C) and Customer to Customer (C2C) are adopted by many Small and Medium Enterprises (SMEs) as a growth strategy for their business. Similarly, public service innovations are also driven by Government to Government (G2G), Government to Citizen (G2C) and Government to Business (G2B) models.

3.5 ICT in Education (E-Learning)

ICTs are a potentially powerful tool for extending educational opportunities, both formal and non-formal, to previously underserved constituencies, scattered and rural populations, groups traditionally excluded from education due to cultural or social reasons such as ethnic minorities, girls and women, persons with disabilities, and the elderly, as well as all others who for reasons of cost or because of time constraints are unable to enroll on campus (Fakunle & Ayodele,



2017). Some of the importance of E-learning to the country is:

- ❖ Access to Remote Learning Resources
- ❖ Evaluative Learning
- ❖ Active Learning
- ❖ Creative Learning
- ❖ Collaborative Learning
- ❖ Integrative Learning
- ❖ Evaluative Learning

3.6 ICT in Economic Development

The economic growth of any nation is tied to its ability to expand productivity. ICTs have the capacity to increase productivity, that is, to create more cost-effective output with the same or less input. Wealth generation is increasingly closely tied to the capacity to add value using ICT products and services. The value of information and accumulated knowledge within developing countries is an important aspect of their future growth potential. Only a very few developing countries have succeeded in narrowing the development 'gap' by harnessing the production or use of ICTs to their development goals. These technologies do not offer a magic potion that can be expected to provide a cure for the sick, to prevent environmental degradation, or to create jobs. However, if these technologies can be combined with domestic and external human resources, they can be instrumental in achieving major changes in the organization of industrial activity and the conduct of everyday life.

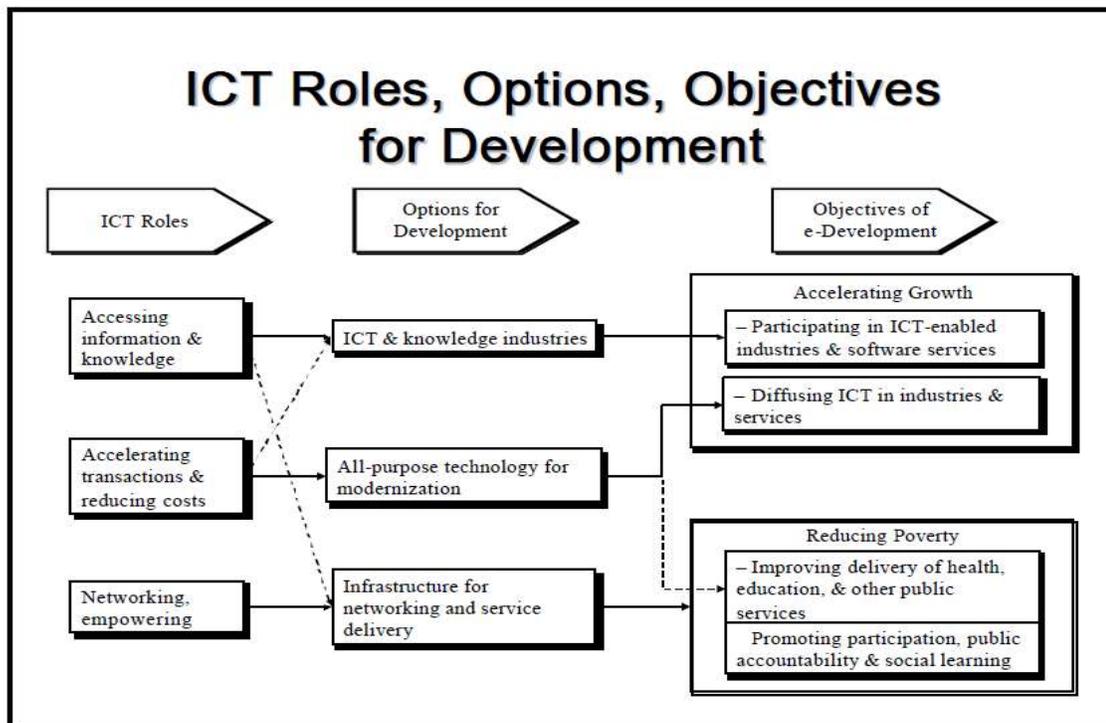


Fig 1.3: Some highlights of the Roles and objective of ICT to the economic development of the country (Nagy Hanna 2003)



3.7 ICT and National Security

The use of ICT in combating crime and terrorism cannot be undermined. Under the leadership of Governor Siriake Dickson of Bayelsa State, Nigeria, the state signed a Memorandum of Understanding (MOU) with Huawei Chinese Company to install CCTV (Closed Circuit Television) in the whole of the State capital, Yenegoa, this helped to keep surveillance on the State capital and it will also go a long way in reducing crime in the state (Isizoh A.N et al, 2013). Also on the leadership of Governor Akinwunmi Ambode of Lagos State, a replica of that was done in key areas in the state capital and some part of the state to reduce the occurrence of theft and crime activities in the state. Car trackers, demobilizers, timers, etc also made vehicle theft a thing of the past. Remote sensing and the use of Global Positioning Systems (GPS) have helped in tracking heavy duty vehicles and locating specific positions on the earth surface, foiling of terrorism and ensuring safe delivery of goods and properties. These and more are few gains of ICT in the Nigerian economic growth and development.

3.8 ICT and Productivity

The use of ICT can be associated with productivity gains. Their application makes it possible to substitute new production arrangements for old ones. Their impact is often at the organizational level. Improvements can be made more rapidly to organizational routines that reflect the learning effects achieved from their use. The direct effects represent the new jobs produced and delivery of new products and services as much as the old jobs being replaced by new ICT equipment. The indirect effects occur as the result of the re-deployment of labour and the reconfiguration of market demand throughout the economy. Productivity growth depends on using existing physical inputs more efficiently. This is often largely a question of co-ordination. One of the significant factors in using ICTs is that they can improve co-ordination by radically lowering costs. This happens both in terms of existing forms of co-ordination as well as by creating completely new possibilities of doing business, for example, electronic commerce using the Internet (Fakunle & Ayodele, 2017).

There is a huge problem in measuring the impacts of ICTs on productivity by means of more efficient co-ordination. The major economic impact of ICTs is felt primarily indirectly in their use as inputs in the production of other products and services, rather than in the production of ICTs. As such, ICTs are adding value to the inputs and thus help to create economic growth.

4. CONCLUSIONS AND RECOMMENDATIONS

In order for Nigeria to be economically competitive, politically stable, and socially secured, there is need to utilize ICT in making advances in health, politics, education, business, agriculture, national security and poverty reduction. The country needs to focus its attention on the positive development, access and implementation of ICT both in the rural areas where majority of the poor people reside and in the urban areas. With ICT becoming the third largest contributor to Nigeria's GDP as well as the largest provider of employment second only to government coupled with general improvements in the living standards of the people, Nigeria's socio-economic development can indeed be improved, It is therefore recommended that, if Nigeria is to achieve her Vision 20:2020 set objectives, as a matter of necessity she must invest massively in Information and Communication Technology (ICT) Sector so as to compete with other great countries in the world.



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