

Impact of Information and Communication Technology (ICT) on the Development of Nigeria: A Critical Overview

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ABSTRACT

Nigeria has been in search of adequate measures to improve on the effectiveness, performance and efficiency of the different sectors of her economy towards attaining national development. Accordingly, this paper explains the concept of ICT and its positive impact on politics, Administration, Education, Security, Business and employment in Nigeria. National Development is seen to be enhanced through ICT with recommendations that visible challenges be addressed. Social change theory was used as a scientific basis for this paper. Social change theory argues for a change and progress as no society is static. Technology is seen as one of the necessities of social change to produce latest forms of life where excellence is inevitable. The paper concludes that ICT is the only avenue of changing politics, Administration, Security, Businesses, education and employment in Nigeria from their non-performing state to a more performing stage towards overall development. It is recommended that there should be an institutional framework for ICT, reflecting in all sectors of the Nigerian economy.

Keywords: *Development, Information Communication Technology (ICT), Politics, Administration, Education, Employment Opportunities, Business and Security.*

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Introduction

Information and Communication Technology (ICT) has undoubtedly been given global recognition as a mechanism by which human affairs are conducted effectively and efficiently. It is seen as a channel created to reduce the sufferings and stress on people, in an attempt to respond to societal problems (Williams, 2011). Political, Social, Economic or Religious activities in the 21st century are measured in terms of success only in relation to ICT. An activity founded on a framework other than Information and Communication Technology (ICT) is considered a venture with little or no results as the outcomes will certainly be inadequate in relation to expectations.

Indisputably, Information and Communication Technology (ICT) is a technological revolution brought about by some provoking initiatives and innovations for needed adjustment or

modifications in human operations in responding to contending social issues. Many scholars posit that the emerging contending social forces occasioned by teeming population has rendered manual method of conducting human affairs inadequate and less achieving (Uyanah, 2018). However, several countries such as India, Taiwan, Singapore, China, Korea, Malaysia, Ireland, Israel and Finland have recorded success stories of fast growing exports of ICT services (Emeka, 2011). Again, several Nations of the world are certain on the gains of ICT and have initiated National ICT policies and strategies towards national growth. No gain saying, many countries now treat ICT mainly as a sector or industry.

Convincingly, ICT has proven in the past few decades to be capable of addressing human problems in the area of Politics, Administration, Security, Education, Business and Employment opportunities amongst others. This is the fulcrum of this paper with Nigeria in focus.

Conceptual Issues

Development

The world development in the realm of scholarship is viewed from two perspectives, geared by the argument on what development entails (Ekpe and Adokereke, 2010). Accordingly, some scholars use the word “growth and change” interchangeably with the word “development”. It is noteworthy that both words have different meanings from development. While growth is seen as an element in development, it cannot on its own be development. The first perspective of development is obviously tied to economic domain, where it is seen as maximization of growth in the Gross National Product (GDP) through capital accumulation and industrialization (Merer, 1989). It is the growth in Gross National Product (GNP) that is used as an economic parameter in measuring growth in this sense. Contrary to the foregoing, the second perspective on development is drawn from the assumptions of the Marxist/Radical school of thought, which considers development from general improvement in the wellbeing and living conditions of people in a given society. The Marxist sees development from the angle of reality on ground and view liberalists as being too abstract. The concern of Marxist is man and his wellbeing and not micro-economic variables (Okereke and Ekpe, 2010). Consequently, development therefore implies that greater majority of citizens of a nation have access to quality education, employment, health services and other infrastructural indices. When required infrastructures are instituted for good living conditions of citizens across the country, there is then national development (Onyeka, 2006).

Information and Communication Technology (ICT)

Information and Communication Technology (ICT) is a term employed worldwide including but not restricted to both the hardware and software of computers, communications gadgets like mobile phones as well as SMS applications, e-voting mechanisms, internet appliances and sensors proficient in citizens biometric data (Ed UNDF 2021) ICT is of different stages consisting of Facebook, Instagram, twitter, WhatsApp, Zoom, YouTube and internet etc. which help in facilitating most effective and efficient dealings across the globe. It is recorded of recent that ICT has geared up productivity in critical sectors of global economy and has impacted positively on many lives that depend on it for survival. Prominent achievements are said to have been recorded in the deepening of democracy in several countries through ICT. Business security and education sectors are pointed to have as well received noticeable impacts from ICT. This paper is crux on critical appraisal of ICT role in the development of aforementioned sectors in Nigeria towards overall national growth.

Impact of ICT on some critical sectors in Nigeria

Information and Communication Technology (ICT) has impacted positively on some critical sectors of Nigerian economy. This it does through its capacity to boost productivity and potentials to meet emerging global challenges as seen below.

Impact of ICT on Politics in Nigeria

The role of ICT in politics is manifested in Election Administration all over the world. Election is a critical component of democracy and the only acceptable channel of leadership recruitment and selection for democratically recognised government (Ateyero, 2018). Given this quantum of importance, elections are expected to be free, fair, credible and transparent in all ramifications, so as to reflect the ‘will’ of the people. The importance of election transparency is key, for reasons that the outcome of every election determines the quality of leadership provided for the country. The quality of leadership in turn determines the nature of governance. Consequently, Good governance where the yearnings and aspirations of the masses are met through provision of needed infrastructures; is dependent on election processes. (Ayeni, 2018).

This is because credible leaders with good and right sense of accountability are elected by the electorates when the process is transparent, while bad leaders with selfish interests are elected through rigging and faulty electoral process. When right choices are made through transparent process, development of the nation becomes inevitable as needed infrastructures are provided for the good of all.

Arising from the foregoing, Nigerian Electoral Management body (INEC) has over the years intensified efforts in achieving transparent process for credible elections in Nigeria. This is evidenced in a paradigm shift from Manual Voter’s Register to technologically advanced mechanisms such as biometric register, (Electronic Voter Register), Automated Fingerprint System (AFIS), Smart Card Reader (SCR) and e-collation support platform (e-CSP). These ICT platforms are over the years adopted as sure-way to institute electoral transparency by many developed countries of the world like USA, and recently developing countries such as Zimbabwe, Somaliland, Togo and Mali etc. (Piccolino, 2015). Notably, the aforementioned ICT channels have made significant improvement on Nigerian electoral process that evidently remove a sitting president (Goodluck Ebele Jonathan) in 2015 and enthrone the then opposition APC when president Muhammadu Buhari was declared Winner by Atahiru Jiga, INEC chairman then.

Indisputably, the identification, accreditation and subsequent e-collation system are the function of ICT to make rigging and manipulation of results difficult for our greedy politicians. Though politicians tried the much they could to abuse these channels and have their ways; tremendous improvements are made in our electoral process. Manifestingly, inflation of figures, multiple voting, impersonation etc. are the outstanding features that have been strengthened in the process of Nigerian elections towards choosing good leaders that will engineer development of the country. This is why our National Assembly Members who are greedy and are afraid of ICT Transparency in the electoral process, voted against e-collation support system(e-csp)which would have certainly enable electorates to vote them out in 2023. Notably, many politicians now use social media for publicity of their aspirations and campaigns. ICT in this sense, can permit electoral activities including voting in critical times as lockdown during covid-19. With enabling legislation, people can exercise their franchise through ICT(online voting) without necessarily moving from one point to another.

Therefore, ICT role in electoral process among other gains include:

- i. Reducing incidence of double registration.
- ii. Checking incidence of multiple voting.

- iii. Checks figure alteration or manipulation.
- iv. Ensures efficiency in electoral activities.
- v. Enhance effectiveness of electoral processes.

Impact of ICT on public administration in Nigeria

The provision of standard and adequate public services remain a task of difficulty if not impossibility to third world countries like Nigeria (Uyanah, Unanam and Okon, 2021). This is manifested in the unsatisfactory services received by the public as rendered by government officials or public servants. This is not because government is not making efforts to better services rendered to the public, but the efforts are not appropriately channelled by those incharge of various responsibilities who have failed in the effective and efficient discharge of their duties. Business of government is lamantably treated as “no man’s business” and often handled with laxity. Also, government resources are seen as opportunity to enrich private pockets other than executing government projects and policies. This has direct effect on the growth and development of Nigerian economy, as government resources are constantly suffocated by the privilege few at the detriment of our development (Bello & Aderbigbe 2014).

However, poor performance of the public sector has been largely attributed to lack of sound financial administration which has negative effect on both economic and social development (Bello et al 2014). It has become imperative for Nigeria, like other development driven entities to institute a mechanism that guarantees accountability in public sector to enhance financial discipline towards required development (Finedo, 2016). ICT platforms have been initiated to be the solution to financial recklessness in the Nigerian public sector, especially in the areas of revenue generation, appropriation and payment of salaries.

Accordingly, single Treasury Account (TSA) for central collection of public revenues and Integrated Payroll Personnel Information System (IPPIS) for payment of salaries to civil servants are trending ICT platforms in practice to check the excesses of financial irregularities in Nigerian Public Sector. Asoqua (2013) noted that the implementations of these digitalized government operations would enable public servants in Nigeria to render efficient services at all levels, ensures high productivity, gingers economic growth, fosters national development and leads to the attainment of our progressive vision. Many officials can conveniently perform most of their duties from home or when they travel. This is made possible by social media contact with their subordinates while out of office. Documents are now scanned and sent online from one office to another for efficiency and effectiveness. ICT helped in this direction during covid-19 and remains very appropriate in times as this in future.

Demonstrably, efforts are made by various units of public sector to register commending remittance to TSA for records of hard work and productivity. In the other hand, IPPIS has ensured elimination of wastages in government Payroll. Administratively therefore, ICT has strengthened the Nigerian public sector through the following ways:

- i. TSA has enhanced productivity in ministries, departments and parastatals in the Nigerian Public Sector. This is because many units are working very hard to prove their viability by what they bring into government coffers.
- ii. IPPIS has helped in the identification and elimination of ghost workers in the Nigerian public sector.
- iii. IPPIS has ensured reduction in wage bill of government through elimination of ghost workers.
- iv. IPPIS has instituted effective, efficient and timely payment of salaries. However, money recovered from fraudulent activities could be used in engaging other Nigerians for survival, which is also an aspect of development.

Impact of ICT on security in Nigeria

It is no longer news that the war against insecurity in Nigeria is over time greeted with failure. Terrorism and crime are on the increase as our security agencies seem to be losing the battle of stemming the tides (Isizoh, 2012). Boko Haram, Kidnapping, Robbery and banditry have taken the lives of so many Nigerians who are both security agents and civilians. Many States in the country are beginning to resort to ICT as a medium to check insecurity as it is done in many developed climes. For instance, Governor Dickson Administration in Bayelsa State signed a memorandum of understanding (Mou) with Hagwei Chinese Company to install CCTV (Closed Circuit Television) in the whole of the state capital Yenegoa. This has helped to keep surveillance on the state capital and crime is reported to have reduced. Governor Ambode Akinwunmi of Lagos state did same in some key areas of the state and theft and crime activities were reduced. Car trackers, demobilizers, timers etc. have made stealing of cars to be reduced. Remote sensing and the use of Global Positioning System (GPS) are all ICT channels that fuel national development and growth. Most commending is the CCTV on the banking security architecture, especially in the use of Automated Teller Machines (ATM) and tracking mechanism for online theft (Isizoh, 2012).

Impact of ICT on Education in Nigeria

Education is one of the most crucial aspect of human existence. People are said to become refined and sophisticated for greater tasks through education. It is seen to be a way of acquiring needed skills and knowledge for expected performance as an individual. Education is therefore, considered as a key index of national development through human capacity. Many scholars have agreed to the fact that formal or informal education improves productivity, health and reduces negative features of life such as Child Labour (Uyanah,Uweh and Okon, 2021). It has the strength and prospects to produce an excellent Human Capital for economic growth of a nation. Uyanah et al (2021) sees education as a powerful weapon for the development of man and the society at large. Given this importance, many countries of the world have improved on their education sector through ICT. This is reflected in digitalizing academic activities and administration for effective and efficient outcomes. E-learning is introduced and has helped in ensuring that many have access to academic information through internet services.

- i. E-learning helped children to learn while at home during the lockdown occasioned by covid-19 pandemic. Many academic conferences are held in recent times and papers presented through zoom at minimal costs. More so, People run online studies and get certified upon graduation. This serves best in difficult times such as covid-19 where movements are restricted.
- ii. ICT helps students to browse materials from internet for efficient study.
- iii. Students also carry out registration of courses online, as against the traditional analogy method of struggling for registration that was cumbersome.
- iv. Financial transactions in academic institutions are now more effective and efficient as online payments have reduced a lot of financial irregularities experienced in the past.

Impact of ICT on Employment in Nigeria

ICT has created employment opportunities for many jobless youths. This is achieved through new ideas in technology via the education system, training facilities and affordable access to computers. Many youths are showing their creativity in software applications, bio-engineering, digital media and mobile applications. It is a fact that many Nigerians now have small offices with laptops to render ICT services for survival. Many youths are found by the road sides with laptops and umbrellas for shelter to render internet and online services to clients. Many are found

on campuses across the country to render computer and internet services to students and staff alike. This has become source of income to thousands of citizens among whom many have used this to sponsor themselves, children or relatives to school.

Impact of ICT on Business Services in Nigeria

The invention of ICT Has made many businesses to go more successful than ever. E-business models are initiated for robust and viable relationships between service providers and clients. The popular e-commerce models created by Technology friendly young population are Business to Business (B2B) Business to Customer (B2C) and customer to customer (C2C) models. This is to ensure efficient and effective service delivery for optimal satisfaction. Very notable is the fact that online advertisements and sells are also made possible through ICT. This has tremendous potentials for national growth. Online advertisement and sells were very helpful in the period of covid-19 Lockdown which could have shut the economy completely. But with online transactions and sells, the Nigerian economy was not completely shut down (NBS, 2017).

Challenges

1. The compromising nature of our Electoral Management Body (EMB) is a militating factor against the success of ICT in politics.
2. Corruption in the Nigerian public service is so cancerous that even with ICT, fraud is still existing.
3. Security gadgets are lacking even in the federal capital territory, not to talk of other parts of the country.
4. Even with ICT, the quality of education and students performance are still low, due to lack of political will by our leaders to provide needed e-learning facilities in the educational sector.
5. ICT is not given institutional framework in Nigeria because, many see it as a sophisticated channel for manipulation and fraudulent practices. This is due to mostly online financial theft driven by the popular “Yahoo boys” who can hack and manipulate any ICT platform. Instead of using it as means of income and genuine business, hackers have made it a criminal avenue for making money.

Theoretical framework

Social change theory

Social change theorists like Morgan (1877), Spencer ~91890) and Hobhouse (1906) were early sociologist whose thinking was informed by man’s specific steps towards growth. They argue for changes in the society according to demands that fit its members at a given time. This theory argues that societies are not static but subject to changes necessitated and trigger by many factors to include Technology. According to Schaefer and Lamm (1992) technology is one of the necessities of social change and compels adjustment and modification in customs and institutions to enthrone excellence and efficiency in human activities.

Therefore, the policy architecture of Nigeria is compelled by necessity of change to embrace ICT in all critical sectors like politics, Administration, Security, Education, Business and employment for overall national development.

Conclusion

It is concluded from the discussions of this paper that; Nigeria needs ICT for economic viability, social security, political stability, Administrative efficiency and educational performance. Therefore, the integration of ICT as a key component in the operations of politics,

Administration, Security, Education and businesses is very inevitable in the pursuit of growth and development in Nigeria.

Recommendations

- i. ICT should be given an institutional framework in our electoral provisions, so as to adopt e-voting for credibility, transparency and integrity of our electoral outcomes with Accountable leaders to pursue development.
- ii. The practice of ICT should be deepened in the Nigerian public sector towards prudent use of government resources for national development.
- iii. More ICT security Gadgets be employed and positioned strategically across the country to curb crime.
- iv. All required e-learning facilities be provided in learning institutions for human capacity building which has direct bearing on national development.
- v. Hackers tracking mechanism should be installed by banks to monitor and report activities of hackers to security agents for prosecution, so as to allow free flow of online banking activities and business transactions.

REFERENCES

- Ayeni F. (2018). The role of ICT in building A. Knowledge Based Nigerian Economy; A Critical Review.
- Bello, O. A. and Aderbigbe F. M. (2014). The role of ICT in National Development and Poverty alleviation IMPACT: IJRET Vol. 2 P. 225.
- Education for All (2002): A Need for education in Africa.
- Ekpe, A. E. and Okereke, O. O. (2010). Development and Underdevelopment: The politics of the North-South divide. Enugu: John Jacobs Pub. Ltd.
- Eu-UNDP (2012). Thematic workshop: Information Technology and elections management, Mombasa, 5-9 March, 2012.
- Ifinedo, P. (2016). Moving towards e-governance in developing society. Glimpses of the problems, progress, and prospects in Nigeria.
- Isizoh, A. N. (2012). Impact of information and communication technology in Nigerian economy- IJERT Vol. 2 Issue 1 February, 2012.
- National Bureau of Statistics (2018) Report on Men and Women activities in Nigeria.
- Onyeka, S. I. (2006), Good Governance as Ethics and Accountability in Governance: The way forward for Africa. LASU Inaugural Lecture Series No. 4, the LASU Press, 2009.
- Piccolino, G. (2015). What other African elections tell us about Nigeria's Bet on Biometrics. www.washingtonpost.com/blogs/cage/wp/2016/10.
- Uyanah, A. A (2018). ICT and Election Administration in Nigeria: A study of smart card reader in Obanliku State House of Assembly election 2015- Unpublished M.Sc. Thesis. Department of Public Administration, University of Calabar.
- Uyanah, A. A., Unanam W. J. and Okon, U. I. (2021). Government Policies and Performance of Public Sector; A critical Appraisal of IPPIS IJPAMR Vol. 16 No. 5-2021.
- Uyanah, A. A., Uweh, A. J. and Okon E. E. (2021). Governance and Covid-19 pandemic: A critical Assessment of Infrastructural Development in Nigeria. JGGSDA Vol. 6, No. 1, February 2021.
- Williams Emeka Obiozor, Ed. D. (2011). Identification of ICT for Development in Nigeria: Utilization, Literacy Efforts and Challenges.