

# Impact of Information Communication Technology (ICT) in Nigeria

<sup>1</sup> Ibhaluobe Olumense Joshua, <sup>2</sup> Benjamin Blandful Cobbinah

<sup>1</sup> School of Electrical and Information Engineering, Anhui University of Science and Technology, P.R China

<sup>2</sup> Schools of Economics and Management, Anhui University of Science and Technology, Huainan, P.R China

Email - <sup>1</sup>[ibhaluobejoshua@yahoo.com](mailto:ibhaluobejoshua@yahoo.com), <sup>2</sup>[bencobbah421@gmail.com](mailto:bencobbah421@gmail.com),

**Abstract:** *The fast growth of ICT over the past two decades has motivated more scholars to study and evaluate its economic impact. This article covers the many ICTs used in Nigeria, the challenges connected with their use, the possibilities for ICT industry growth, and the impact on the Nigerian economy. It also shows the growth rate as a stimulant for developing economies like Nigeria's in the twenty-first century. ICT services have helped grow markets, lower transaction costs, and increase productivity in both the public and private sectors. The influence of ICT on our four major economic sectors was discussed freely, with a focus on the new economic and social opportunities offered by wireless platforms. e-fraud, hacking, offensive image distribution by foreign and local media, and job displacements leading to unemployment are all widespread negative effects of these ICT services. In summary, we find that ICTs provide a broad range of societal benefits that have yet to be explored in Nigeria*

**Key Words:** *Economy, Information communication technology, Nigeria telecommunication limited, Social Impact, Innovation, E-government, Nigeria.*

## 1. INTRODUCTION:

Telephony, mobile telephony, radio, television, video, teletext, voice information systems, and fax are all examples of self-contained media that Wangwe (2007) classifies as ICT. The technology and infrastructure needed to store, modify, distribute, and transmit data, the legal and economic institutions required to govern ICT access and usage are all part of an integrated system. ICT is defined by Van Ark et al. (2011) as an umbrella word that includes all kinds of communication such as video conferencing and distant learning as well as related services and applications. Computer-aided transcription (CART) is a method of converting spoken language into text. "The digital telephone network, mobile phones, Internet capabilities, Internet servers, and fixed broadband," said Pradhan et al.

ICT is a general-purpose technology that allows people to produce, access, analyze, share and use information and knowledge in previously unimaginable ways. Thus, ICT impacts the whole economy in a broad range of ways.

Much of the present globalization wave may be attributed to rapid technological advances (ICT). It is true that ICT has played a major role in the Nigerian economy during the last three decades. Because of the pervasiveness of ICT, it is difficult to predict the shape and direction of these extraordinary developments. We use our phones to text, email, and tweet; we use the internet to work, teach, research, purchase, and entertain ourselves; and we eagerly await the next ICT innovation (The Conference Board, 2011).

This study's goal is to evaluate ICT's social impacts in Nigeria. We accomplish this by reading a lot of theoretical literature. To begin, we look at Nigeria's ICT industry's development and types of ICTs utilized. Second, we evaluate ICT usage obstacles in Nigeria. Third, we examine the social consequences of ICT, both positive and bad.

Many scholars are studying the economic implications of fast advances in information and communication technology (ICT), especially how ICT may increase productivity, promote economic development, and reduce poverty. Based on the majority of studies, ICT is a key component of economic and social development, favorably impacting economic growth, productivity, and employment. Also, international institutions like the UN, ITU, OECD, and World Bank believe that ICT is a key driver of sustainable development. According to the OECD, ICTs help reduce poverty by creating new sources of income and employment, as well as reducing the cost of accessing health and education services.

Businesses can communicate more efficiently and effectively, lowering production costs and increasing productivity. ICT also enables new markets and lower capital costs as a result of increased financial system efficiency. Increasing productivity within the ICT sector contributes to overall economic productivity growth, according to certain authors.

The remainder of this essay is organized as follows. Section 2 covers ICT in Nigeria, covering the main ICTs used, their essential roles, and challenges. Section 3 examines the impact of ICT on several sectors in Nigeria. Section 4 ends with suggestions on how Nigeria may better use ICTs' latent social benefits to enhance overall social wellbeing

## 1.1 Research Concerns

The phrase "social impact" refers to the changes that ICTs bring to people's lives and the economy as a whole. Thus, important problems include:

What impact does ICT have on the economy's social sectors like education and health?

Can ICT influence the political system, such as voter turnout?

What impact does ICT have on social exclusion and inclusion?

Given ICT's widespread nature and usage, the social consequences of ICT appear endless.

## 1.2 ICT in Nigeria

The ICT sector has led the way in serving the needs and interests of low-income people in emerging countries like Nigeria. Although understanding of the ICT sector's significance to economic potential has only grown in the last fifteen years. Technology has evolved a lot recently. "Universal access" was an aim in the 1980s, but not a reality (PTTs). PTTs were mainly landline-based, government-owned and integrated services that were costly and degraded in quality globally. During the PPT period, data network capacity was non-existent, and business technology development was slow.

For any nation's social and economic empowerment, especially a third-world nation, ICT is recognized as a growth engine. These countries are using information technology to empower their people because it may help them achieve more equality in the emerging Global Digital Networked Information Economy. Nigerians have recently become more tech-savvy. Since the three companies received their GSM operating licenses in January 2001 and started operations in August of that year, Nigeria's digital mobile network has grown significantly.

NITEL operated a "National" service, whereas Mobile Telecommunication Services operated a limited Lagos service (MTS). The two companies offer voice services via an analogue network, as well as value-added services including voicemail and paging, through three switches (in Lagos, Enugu, and Abuja). MTS shut down in 1995 due to non-payment of NITEL interconnection fees.

As seen in Figure 1, Nigeria has the fastest growing phone subscribers in Africa and is one of the world's most populous nations.

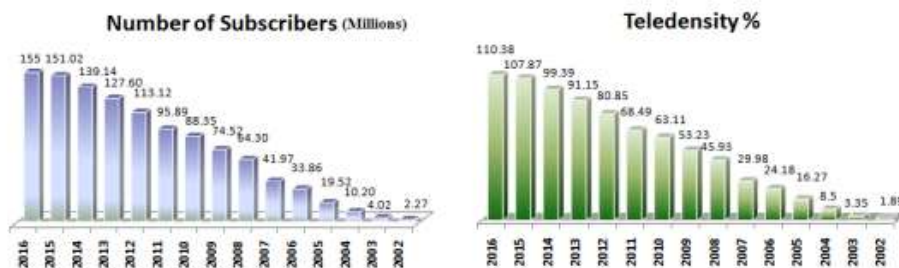


Figure 1 Subscribers data from 2002 - 2016 (Source: Nigeria Communication Commission NCC).

## 1.3 The Major ICTS in Use in Nigeria

Radios and telephones were the first ICTs in Nigeria, mainly delivered through copper wires. These ICTs allowed Nigerians to access social services such as news, information, leisure, and entertainment. The evolution of technology has led to more complex ICT tools and systems with wider applicability and coverage. One may find these developing ICTs in mobile phones, televisions, computers (laptops, IPADs), email, video conferencing and expert systems (Okoye, 2012). Other popular ICT-enabled applications in Nigeria include Facebook, Twitter, Instagram, Blackberry Messenger, Skype, WhatsApp, and YouTube

## 1.4 ICT's Basic Functions

Liberated from PTT limitations, ICT now underpins every area of the world's economy, including Nigeria. Specifically, ICT have enabled:

- Provide immediate connectivity — voice, data, and visual – improving efficiency, transparency, and accuracy.
- Replace more expensive means of communication and trade, such as travel.
- Increase market choice and access to otherwise inaccessible goods and services.
- Extend the scope of potential markets.
- Spread knowledge and information.

The World Bank found that "firms that utilize ICT grow faster in terms of sales, productivity, and employment." Table 1 and Figure 2 show Nigerians' access to ICTs. Individuals may increase their knowledge and abilities, find better-

paying employment, manage their discretionary money wisely, and develop markets for their goods and services by exhibiting the traits mentioned above

S/N	INDICATOR	PERCENTAGE
1	Individual access to mobile telephone	63.9%
2	Individual ownership of mobile handsets	43.6%
3	Household ownership of mobile telephones	59%
4	Access to fixed telephony	0.4%
5	Access to computers	4.5%
6	Television access	67.6%
7	Radio access	41.2%
8	Ownership of radio	41.2%
9	Internet access	6.5%
10	Broadband penetration	6.1%

Table 1. Access to Information communication technology by Nigerians

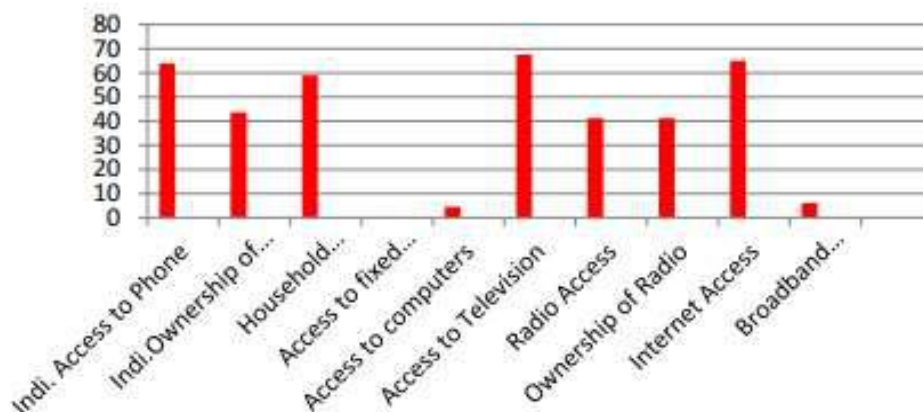


Figure 2. Access to ICT sources by Nigerians

## 2. CHALLENGES FACED IN USING ICT IN NIGERIA:

Nigerians have several challenges adopting ICT. These issues include issues of connectivity, capacity, capital, culture, community, business, and cooperation (Chetley, 2006; Satellife, 2005; Rao, 2005).

Following is a short explanation. Insufficient telecommunications infrastructure and high telecommunications tariffs, high internet access costs, and an insufficient number of internet service providers are examples of issues related to connectivity.

Nigeria currently has Africa's biggest GDP. Table 1 shows that Africa, which includes Nigeria, has much bigger difficulties than the rest of the world in terms of internet availability and costs. Nigeria has a major issue with individuals not knowing how to use, service, and maintain ICTs. Literate and competent workforce is needed for effective use of ICT facilities, especially when new technologies and creative breakthroughs are rapidly adopted. As seen in Table 2, the overall adult literacy rate in Nigeria was 51.1 percent in 2008, compared to 63 percent in Africa and 85.2 percent globally. The percentage of 59.6% in 2015 is still far below advanced regions of Europe, the Americas, and Asia. This clearly shows why illiteracy and lack of technical skills are major barriers to effective ICT usage in Nigeria.

Nigeria continues to invest in ICTs at a low pace compared to developed nations. According to Chetley (2006), developing nations like Nigeria struggle to find the right mix of private and public resources to enhance public knowledge bases. Most businesses and governments lack sufficient ICT infrastructure. As an example, e-learning is still a long way off in Nigerian public schools. Tech-enabled healthcare remains a "high ideal" in Nigeria. Historically, Nigerian ICT investments have been scattered, with no coordinated effort to improve information sharing. An ICT infrastructure is needed to support educational, health, and social services in Nigeria.

A culture of information sharing is required to successfully use ICT in Nigeria. This requires political resolve to amend telecom and television laws to remove any cultural barriers to effective ICT use in the country. This means

that groups of ICT users must be clearly established, while non-users must be encouraged to join. Empowering non-users and user communities to collaborate on an integrated ICT program is one way to build an internet-based economy in Nigeria that supports e-commerce, education, and healthcare. Above all, effective ICT use in Nigeria requires full international cooperation, since no one country can solve all issues. Nigeria's ICT success requires knowledge and money from citizens, governments, and foreign organizations

Countries	Internet users per 100 persons	Percentage of households with internet access	Percentage penetration of mobile broadband subscription	Price of prepaid computer-based mobile broadband (1 GB) in % of GNI per capita
Asia and Pacific	32	33	22	12.6
The Americas	61	61	48	11.1
Europe	75	77	68	1.9
Africa	16	7	11	58.3

Table 2: Connectivity access 2013 Source: International Telecommunication Union

Countries	Asia	North America	South America	Europe	Africa	World	Nigeria	Nigeria*
% Literacy rate	84.3	96.1	93.3	99.3	63.0	85.2	51.1	59.6

Table 3: Total adult literacy rate 2008. Source: UNICEF Institute of Statistics, UIS

## 2.1 Impacts of ICT in Nigeria

### 2.1.1 Sectorial Impacts of ICT

ICT is vital to many sectors of the Nigerian economy. Sectoral impacts on government, education, law and business are discussed here.

Governance Sector governance is the process of showing accountability for consistent and clear policies. As demonstrated in Figure 3, integrating ICT into public administration improves service delivery efficiency. Heber claims that ICT facilitates excellent decision-making while saving time. With this in mind, the Nigerian federal government created an e-government plan for long-term democracy.

Internet-based citizen involvement has established a new channel of contact between people and the nation's government. Soon after Nigeria's return to democracy in 1999, ICT altered socioeconomic and democratic governance. The federal government took numerous steps to make e-government work smoothly in state administration.

To achieve these lofty goals, Chief Obasanjo's civilian regime directed the then-Ministry of Science and Technology to develop appropriate programmers capable of facilitating the establishment of a reliable and cost-effective infrastructure that will promote efficient internet service utilization in Nigeria via widespread use of ICT devices, leveraging ICT to drive effective and efficient public service delivery to Nigerians. Thus, ICT acts as a strategic tool for democratic governance in Nigeria, identifying important areas of governance that contribute to Nigerians' socioeconomic well-being, and enabling for human participation within a democratic system.

Embracing and using ICT has significantly increased countries' development efforts. Singapore, the US, Canada, Japan, and most European countries use ICT to enhance sustainable development and governance. It boosts production, efficiency, and saves money. As a consequence, several countries across the world are concerned about the use of ICT in governance.

### 2.1.2 Legal System Sector

Attorneys and law students throughout the country may use ICT to view current court proceedings/cases and legal reports in any format. Technology has a huge effect on legal education and practice. They are now important tools that enable massive legal information retrieval systems and help lawyers make decisions in document creation, administration, accounting, and conveyance. The internet and its multimedia component, the World Wide Web, now allow law students, lawyers, and judges to access global information. Search engines like Yahoo, Google, and Microsoft Network Search contain website URLs and metadata.

### 2.1.3 Management sector

ICT is an important part of national infrastructure and is used extensively in both public and private sectors. It creates economic opportunities, especially for companies outside of cities, and improves links between businesses, suppliers, and consumers. IT can help enhance management and operational efficiency. Banking, insurance, and real estate would be impossible without information technology.

Nigerians are increasingly using digital payment methods as a consequence of the cashless policy and other payment initiatives. As demonstrated in Figure 4, the value of mobile payment transactions has continuously increased. However, as shown in Figure 5, the value of check transactions is decreasing while ATM and other payment transactions are rising. Again, this shows a growing preference for electronic payments.

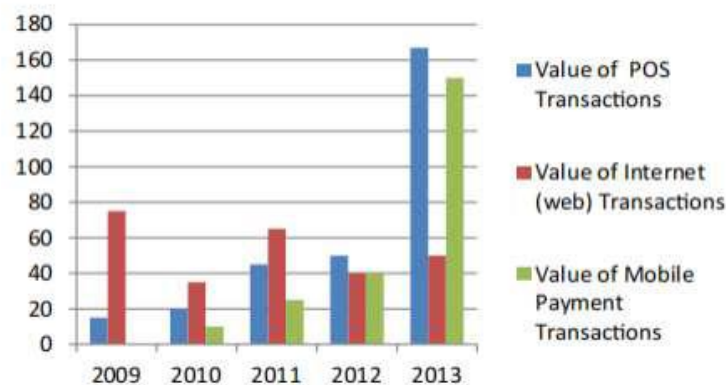


Figure 3. Digital cashless transactions (Source: Central Bank of Nigeria CBN Statistics NITDA2015).

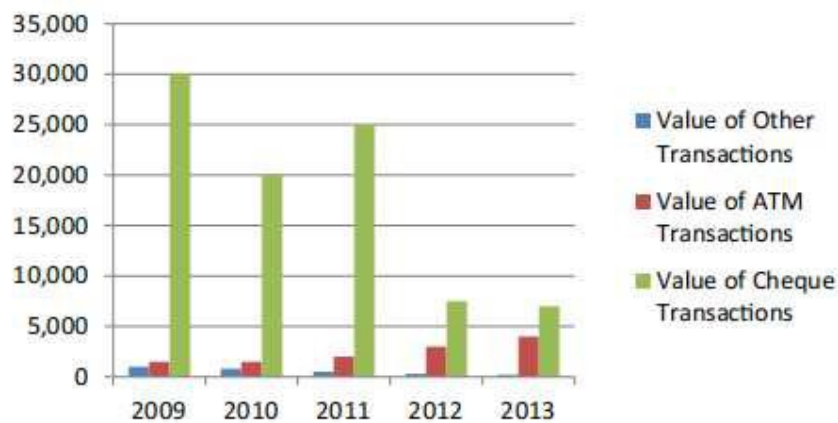


Figure 4. Value of payment transactions (Source: Central Bank of Nigeria (CBN) Statistics NITDA 2015).

IT has changed companies and industries, accounting for the majority of capital investment in many industrialized countries. The findings differ depending on how performance and ICT payoffs are assessed and analyzed. For example, one study found that ICT investments boost output but not profits. Another study found that although ICT capital had no effect on productivity, ICT labor boosted output and profit. In an empirical study that specifically addressed competitive dynamics in a market, non-adopters of ICT saw their profits decrease as other businesses adopted new ICT.

## 2.2 ICT's Social Benefits in Nigeria

We examine ICTs' positive social impacts in Nigeria, focusing on improving governance, public institutions, socioeconomic inclusion, and overall social welfare (2011).

According to UNCTAD (2011), ICTs may assist democratic processes and increase citizen participation by enabling communication and information dissemination via social networking sites, email, and mobile phones. Encouraging public participation in decision-making via e-government. Technologies of Information and Communication (ICT) clearly decentralize information power, change governance institutions, promote public participation in decision making and provide new responsibilities for government based on openness, accountability and participation (Beardsley et al, 2010). Internet connectivity in Nigeria promotes government transparency by increasing public access to information.

While the Freedom of Information Act currently requires people to go through "hell" to acquire some public records, it is anticipated that authorities will soon stop doing so and begin publishing public records online and giving citizens with access to government databases. Thanks to ICTs, Nigerians may now monitor and evaluate the political process and other government activities, as well as fight corruption. The recent implementation of the Treasury Single Account, widespread use of card readers and permanent voter cards, obligatory bank account verification numbers, and mandatory mobile phone number registration are all important ICT-driven measures in the battle against corruption and terrorism. All Nigerian government agencies must use ICT-enabled web-based frameworks. With e-governance, citizens

may engage in policy discussions, promote democracy and the rule of law, strengthen legislative representation, and track and monitor government income, expenditures, policies, and administrative procedures. To guarantee that Nigerians can access government services comfortably, swiftly, and easily, e-government is the way to go in the future.

### 2.3 Enseignement et

Globalization and the IT revolution have impacted Nigeria's education and health sectors. The way Nigerians study has changed significantly. Learning is quickly moving away from traditional textbook-based learning toward lifelong learning facilitated by digital communication, social networking, and collaborative technologies. Indeed, ICTs are altering how and what people learn in Nigeria. Thanks to the internet, Nigerians today have unlimited access to a plethora of material and information. Also, study findings may be easily shared worldwide through the internet.

The impact of ICTs on the Nigerian education sector is shown in the closure of the school-home divide and the development of borderless educational systems. Online and/or virtual universities are also emerging, presenting students and instructors as partners in their quest of just-in-time education. We look forward to working with organizations like Microsoft, Cisco, IBM and others in the future to provide Nigerian classrooms with the necessary technology and internet access.

For example, the International Telecommunication Union (2010) lists electronic health records, telemedicine, m-health (using cellphones for health reasons), decision-support systems, e-learning and e-journals as examples of e-health ICT applications. The ICT revolution has affected virtually every aspect of healthcare policy, research, and delivery in Nigeria. However, the impact of ICTs in this sector is not broad, since there is still room for improvement. In Nigeria, rural health professionals may now use ICTs to learn about disease outbreaks, prevention, and early treatment.

In Nigeria, healthcare is being delivered through ICT-enabled mobile point-of-care devices with specialized software. Most Nigerian hospitals are now electronically storing patient data, and SMS are also used to authenticate medications.

Distance, poverty, and resource constraint have hitherto limited rural Nigerians' access to healthcare services. The importance of ICT in the current Ebola epidemic in Nigeria cannot be emphasized. We need an ICT-based national health plan that allows individuals to check their medical records, renew medications, arrange appointments with doctors, and enroll in the National Health Insurance Scheme.

The use of ICTs in 21st century education has been seen as essential for keeping up with rapidly changing technology. The importance of integrating ICTs into the Nigerian educational system has translated into tremendous potential for good results, even if investments in ICTs have not returned as much as similar expenditures in communication (Atureta, 2011).

The widespread worldwide effect of ICT has definitely affected schooling. Teaching, learning, and research have improved as a result of the use of ICT (Kwacha, 2007). They claim that the advent of ICT use, integration, and dissemination changed educational techniques by providing instructors and students with a modern learning experience. It helps to connect school experiences to work environments, develop economic viability for tomorrow's workers, implement radical changes in schools, strengthen teaching, and provide opportunities for school-world connections (Davis & Tearle, 1999; Lemke & Coughlin, 1998; cited by Yusuf, 2005).

Adomi and Kpangban (2010) described ICT as electronic technologies for storing and retrieving information. The acronym for information and communication technology is ICT, according to the Online Oxford Dictionary.

Sometimes confused with information technology (IT), unified communications stresses the role of telecoms (phone lines and wireless signals), computers, middleware, and required software, storage, and audio-visual systems that allow users to generate information. ICT includes both information technology and telecommunications as well as all kinds of audio and video processing and transmission, network-based control and monitoring, and broadcast media.

### 2.4 ICT in Nigerian Education

Nigeria has recognized ICT's educational potential. The national policy on computer education emphasized the need to integrate ICTs into the Nigerian educational system. This goes back to the 1988 National Policy on Computer Education (FME), which emphasized teaching basic computer skills, using computers to help students learn, and basic text writing, math, and data entry.

Computer science was also required to be taught as a distinct topic in secondary schools. However, the implementation failed. The 1988 and 2004 amendments of the FRN reemphasized the necessity for ICT integration in Nigerian education. This shows an awareness of the necessity for ICT, as well as infrastructure. The Nigerian National Policy for Information Technology outlined three major objectives (FRN, 2001). Among these goals include preparing the youth for global competition, integrating ICT into education and training, and creating multifunctional ICT institutions as ICT centers of excellence. These objectives were achieved using nine primary ways. Among them:

i. Making ICT obligatory in all schools

ii. Creating ICT curriculum for all levels Investing in education by ICT companies v. Offering ICT study grants and scholarships a program to educate youth corps trainers in ICT.

ICT capacity building at the zonal, state, and local levels Setting up private and governmental ICT institutions Collaboration with worldwide and domestic ICT projects.

## 2.5 The Role of ICT in Nigerian Education

The main goal of ICT in education is to use ICT as a teaching and learning tool. The goal of ICT education is to familiarize pupils with computer use, as well as related social and ethical issues. By adding simulation games, ICT has enabled active learning utilizing all five senses. "ICT is now regarded as a utility, comparable to water and electricity, and has thus become a major factor in any nation's socio-economic development," said Professor Ajayi, G. O. of OAU, Ile Ife, Nigeria.

As a result of this, ICT is now playing a major role in reducing poverty via employment creation and investment opportunities..." Since stated before, ICT offers real and practical advantages for countries like Nigeria, as governments may utilize it to radically alter and modernize their economies.

Tinio (2002) states that ICTs are effective facilitators of educational change and reform. By creating an active process connected to real life, it helps to increase educational access, relevance to the workplace, and educational quality. ICT has helped increase access to, and relevance of, education in Nigeria. It greatly simplifies information acquisition and consumption, allowing developing countries to enhance educational institutions, policy formulation and execution, and the choices accessible to businesses and the disadvantaged. This new method of communication reduces isolation and facilitates information availability. Because ICT allows for asynchronous learning, this is made possible. For example, online course materials are available 24/7. Also, using ICT-based educational delivery modalities like radio and television eliminates the requirement for all students and teachers to be present. Also, certain ICTs, like teleconferencing, enable many learners to receive courses simultaneously (synchronous learning).

ICT has also improved access to distant learning resources. Teachers and pupils no longer need to rely only on physical library materials (limited access). With the internet and the World Wide Web, anybody, anywhere, at any time may access an endless amount of educational materials covering almost any subject. Notably, many schools in developing and wealthy countries lack sufficient library resources. Also, ICTs provide access to global resource persons.

Notable in the Nigerian educational system is the role of ICTs in facilitating the shift to a learner-centered environment. It has improved educational and training quality by increasing student motivation and engagement, as well as basic skill acquisition. To provide students with challenging and authentic content, ICT resources such as movies, television, and multimedia computer applications are used. Furthermore, networked computers with internet access increase learners' motivation by integrating media richness and interaction with real-world connections and events.

The development of higher order thinking talents and creativity is helped by ICT drill and practice. They used computers to learn skills and subjects through reinforcement and repetition. According to Haddad and Draxier (2002), ICT has improved access, efficiency, learning quality, and management systems. By creating new employment and investment possibilities, ICT may help alleviate poverty, according to Obeng (2004).

According to David (2005), kids who use ICT learn more about how to study since they must interact with the computer. ICT has also changed the way students and instructors communicate, making it more open and personal. ICTs provide knowledge exchange and access to new learning materials. It has also helped pupils improve their communication and information access. Because there is a national policy encouraging ICT usage in schools. It also increased students' motivation and interest.

ICT in education promotes active, collaborative, creative, integrative, and evaluative learning. Active learning mobilizes information inspection, calculation, and analytical capabilities, allowing students to investigate, analyze, and create new knowledge. With ICT-enabled learning, students, teachers, and experts may connect and collaborate from anywhere. Furthermore, ICT-supported learning promotes data modification and product development rather than data regurgitation. It has also helped create an integrated approach to teaching and learning. Disciplines and theory and practice are no longer artificially divided in the traditional classroom. Student-directed and diagnostic, evaluative learning and the use of ICTs in education allows students to do more than just listen and recall.

## 3. Combating Poverty:

In Nigeria, ICT-enabled solutions have become real poverty-reduction tools. It has created jobs for millions of Nigerians, especially in the production and sale of recharge cards, as well as the sale and maintenance of ICT-based equipment, thus boosting the poor and vulnerable's income. ICTs have improved access to information and markets for peasant farmers and businessmen. For example, the Transformation Agenda's ICT-based fertilizer distribution system improved the probability of farmers receiving government-subsidized fertilizers. The benefits of electronic government-to-citizen communication cannot be emphasized, especially in terms of poverty and corruption.

Radio and television are being used to educate the poor and rural people about government poverty reduction efforts. Nigerians now have access to mobile banking and other low-cost investing options. For example, cheaper electronic wallets with various financial transaction applications are now accessible in Nigeria. Future governments in Nigeria should create durable institutional frameworks, processes, and platforms for poverty reduction via coordinated and creative use of ICTs, as acknowledged by the FAO (2005).

### **3.1 Improved Communications, Interactions, and Access to Information**

Using ICTs, governments can interact with people and enhance service delivery. Indeed, ICT-enabled networking infrastructures enable Nigerians (rich and poor) to participate in development, get timely market and buyer information, network with domestic and international investors, and mobilize against poverty and corruption. Increasing Nigerians' awareness of global best practices and standards requires ICTs. Integrated banking systems and other ICT-based solutions are expected to help small businesses and their public sector connections in the future. As a result, the business environment would improve, the private sector's competitiveness would improve, and the country's economic and social development would be boosted. The benefits of improved communication and interaction amongst individuals enabled by ICTs are enormous.

It has changed how Nigerians interact, especially via social networking sites and online blogs. Some Nigerians now use these sites to find jobs and long-term relationships. Some companies use these channels to recruit new employees. Politicians are increasingly utilizing social media to communicate with voters. Prior to the 2015 Nigerian general elections, politicians increased their use of social media such as Facebook, Twitter, and Instagram.

These forums allowed them to both promote their ideas and attack the governing party. Government and national development issues were often discussed on Naira Land and Naij.com. These figures show how ICTs have enhanced Nigerians' ability to interact and communicate.

### **3.2 Innovation**

It is "the introduction of a new or significantly improved product (item or service), process, marketing strategy, or a new organizational method in business operations, workplace organization, or external linkages," says the OECD and Eurostat's 2005 Oslo guidebook.

It may occur in both the public and private sectors of an economy. Economic agents' efficiency, adaptability, and creativity have improved due to the usage of ICTs. Using ICTs and knowledge-centric management tools to create new products, services, and business models is one of the most effective ways Nigerian entrepreneurs today undercut competition. Consider academics who teach and study. For academics, ICTs have become a tool that allows them to instantly access relevant data and information from vast and growing global sources. The research and innovation landscape in Nigeria has changed.

Nigerian governments and organizations should utilize ICTs to enhance service delivery, promote collaborative and grassroots innovation, leverage global economic knowledge, develop and deepen consumer-producer interactions and traditions, and help create new communities of ICT-based innovators.

### **3.3 The Origins of Contemporary Organizations**

The ICT revolution is allowing the creation of lean, globally connected, responsive, and quality-driven modern corporate organizations. The development of mobile, internet, and collaborative technology has increased these transformative impacts. It is now expanding to public and civil society organizations. Network-centric virtual business organizations are quickly taking root in the economy, synchronizing consumer, producer, and other stakeholder needs inside a dynamic "see and respond" framework. As in the workplace, collaboration, job rotation, and universal access to all information are replacing hierarchical structures. A paperless business is one where most organizational activities are performed online through email, teleconference, etc.

File cabinets are increasingly being replaced by enormous amounts of data stored on laptops, disks, and USB-based external devices.

### **3.4 Emergence of Socialism**

In Nigeria, the ICT revolution has spawned social entrepreneurs in education, health, communication, and entertainment. Online instructors and examiners design and execute ICT-centric curriculum; skilled entertainers produce and sell theatrical skits and games; and software engineers create apps for monitoring and distributing information about pricing throughout the economy. Clearly, ICT technologies foster the entrepreneurial spirit of the people, resulting in a significant number of social entrepreneurs in Nigeria. In general, ICT has a positive social impact by enabling Nigerians to become social entrepreneurs.



### **3.5 Social Entrepreneurship's Emergence**

In Nigeria, the ICT revolution has spawned social entrepreneurs in education, health, communication, and entertainment. Online instructors and examiners design and execute ICT-centric curriculum; skilled entertainers produce and sell theatrical skits and games; and software engineers create apps for monitoring and distributing information about pricing throughout the economy. Clearly, ICT technologies foster the entrepreneurial spirit of the people, resulting in a significant number of social entrepreneurs in Nigeria. In general, ICT has a positive social impact by enabling Nigerians to become social entrepreneurs..

### **3.6 Employment Affects**

UNCTAD (2011) states that ICTs help create jobs and self-employment. People may get jobs either directly or indirectly via multiplier effects on the ICT sector and ICT-centric companies. Telecommunications services are one of the most potential job-creation industries in developing economies, particularly Nigeria (UNCTAD, 2010). Pyramid Research (2010) said that Nigeria's growing mobile telecommunications sector has led to increased industry and associated industry growth, direct and indirect job creation, and skill development. They have changed the kind of jobs available to individuals, as well as the degree and type of skills required to take advantage of them. Employers in both the manufacturing and service sectors are increasingly stressing the need of computer literacy. To put it simply, this shows the importance of ICT in modern Nigeria.

### **3.7 Integration of society, peace, and security**

ICT applications have increased social interaction and inclusion among Nigerians. For example, the advent of mobile phones, computers, and internet access increased personal interaction. These ICT applications' potential for bridging, peacemaking, and conflict resolution cannot be emphasized. Nigerians may use these applications to connect, solve problems, share ideas, and celebrate their differences.

These factors help keep Nigeria calm. ICT applications have also been extensively used in recent years to combat terrorism and other crimes in Nigeria. Mobile phones are the fastest method to contact security services in an emergency. The Nigerian Bank Verification Number (BVN) is also used to track terrorist funds. Clearly, these innovations would not have been possible without ICT. It is also a powerful instrument for promoting human rights, particularly freedom of expression and information, expanding access to knowledge, exposing human rights abuses, and encouraging open government.

Social networking also promotes intercultural understanding. These findings demonstrate the impact of ICT on social inclusion, harmonious cohabitation, and dispute resolution.

### **3.8 Activism in Politics**

Numerous ICT-based venues enable Nigerians to express their political views and contribute to a well-functioning political system. The role of social media in spreading social demonstrations in Nigeria today cannot be understated. Similar social media tactics were employed in January 2012 to mobilize Nigerians against a gasoline price rise. The government had to reconsider its prior policy pronouncements after the outcry. People sought and got an apology from a governor who told a small businessman to "leave and die." These are only a few examples of how ICT has influenced political action.

## **4. ICT's Negative Impacts in Nigeria:**

Nigerians are also at danger from ICTs because of their harmful social effects. The following outlines some of these negative effects. ICT has several detrimental effects on people's privacy and security. These include financial losses owing to DDoS attacks, hacker attacks, data loss due to theft or corruption, and the exposure of personal data (UNCTAD, 2011). According to the OECD (2008), these Nigerian-specific issues may harm communities, economies, and even businesses. Every year, e-fraud costs Nigerians billions of naira.

e-fraud cost Nigerian banks N199 billion between 2000 and 2014. ICTs may also be harmful to our health. Injuries from computer use at work and serious health effects from improper e-waste disposal or recycling are major ICT issues in Nigeria. The growing use of computers by economic actors has resulted in job losses and displacement. In certain industries, such as auto manufacturing, the desire for expert systems such as robots has displaced unskilled and regular labor groups such as spray painters and welders.

According to Chaozhu (1993), international television broadcasts, CD-ROMs, and video cassettes portray war, disasters, starvation, kidnapping, armed robbery, drug addiction and trafficking, pornography and prostitution, and children unsupervised with short guns. Many Nigerians have been addicted to these vices, harming the society as a whole. Omekwu (2003) identified two common and negative effects of an ICT-centric society, particularly in Nigeria. The social effects of ICTs are well documented in Nigeria.

## 5. Recommendations and Conclusions:

This study looked at the social impacts of ICTs in Nigeria. Three objectives were achieved. To begin, we looked at the Nigerian ICT sector's development and the technologies used. Second, we evaluated ICT usage obstacles in Nigeria. Third, we examined the social impacts of ICT, both positive and negative. The study reviewed a lot of theoretical and empirical literature.

Here are our findings. Enriched communications, relationships, and information access; improved job possibilities; and the development of contemporary organizations are only a few of the positive societal effects of ICTs in Nigeria. However, certain ICT-related social consequences are detrimental to the total, such as e-fraud, hacking, the dissemination of offensive images by foreign and local media, and job displacement leading to unemployment.

In general, we find that many ICT-related social advantages remain untapped in Nigeria, including complete adoption of e-government, greater Nigerian-international cooperation to promote ICT applications in education, and full implementation of an ICT-centric national health plan. These findings suggest that policymakers and implementers in Nigeria's many social sectors should explore the latent social benefits of ICTs to enhance overall social welfare.

## Conflict of Interest:

The author certifies that there are no conflicts of interest in this paper's statement.

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