Assessment of Mobile Phone Use in Nigeria from Inception to Date

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Abstract: The relative effectiveness of Information Communication Technology (ICT) and its consequences in this fast-changing world was endless. This paper investigates mobile phone, It usage, proficiency and it's constrain in Nigeria. Global System for Mobile Communication (GSM) has brought tremendous changes in individual way of life and societies in general where people who stay far from one another can easily link together with wireless phone. A mobile phone also called mobile cellular telephone, or cell phone can be regarded as an electronic device used for two-way radio telecommunication over a cellular network of base stations known as cell sites. Most mobile phones provide voice communications, Short Message Service (SMS), Multimedia Message Service (MMS), and provide Internet services such as Web browsing and email etc. It promotes significant benefit to education, business transaction and social life in general. While on the other hand it contributed a lot toward spreading anti-social act, immorality and ill health to some extent etc. An official statistic by Nigerian Communication Commission (NCC) revealed that there are about 150,660,631 active mobile phone connections in Nigeria as at the end of third quarter 2015. Uses of mobile phone good or bad are two side of a coin. Every good thing when abuse can be harmful, so it is with mobile phone. Minimizing the amount of time spent using mobile phone, speaker mode use or a headset use and public awareness on proper cell phone use pattern would help toward having optimally benefited from having mobile phone.
Keywords: Mobile phone, GSM, ICT, SMS, NCC.

INTRODUCTION

The advent of Information Communication Technology (ICT) and its subsequent adoption by both the developed and developing countries ushered in the information age. Consequently, information has become a valuable commodity in the global world. Thus, nations that have acquired the necessary ICT infrastructure have been moving rapidly into the post-industrial information–based economy.

Mobile phone which is an integral part of ICT has become one of the most important media of information communication of our time. However, with the advent of Global System for Mobile Communications (GSM) as introduced by Fourth Republic of Nigeria and democratic Government in power, hitherto the deregulation/ liberalization of the mobile phone market in Nigeria has led the wide spread of Global System for Mobile communication (GSM) network providers operating on the 900/1800 MHz spectrum, including ECONET wireless, MTN communication, GLOBACOM and M-TEL, NETEL respectively.

Global System for Mobile Communication (GSM) has brought a tremendous change in individual way of life and societies in general where people who stay far from one another can easily link together with wireless phone. People with same mind, opinion, vision and interest can interact irrespective of distance and time. At same time Mobile phone improve business activities and other social aspect of life. ''It has become appallingly obvious that our technology has exceeded our humanity'' These words of Albert Einstein are very true and are proving their worth with a dramatic increase in mobile phone usage in recent years. It has increased the attraction of young customers and has become a great issue nowadays. Mobile or cellular phones are now an integral part of modern telecommunications. In many countries, over half the population use mobile phones and the market is growing rapidly. In 2014, there is an estimated 6.9 billion subscriptions globally. In some parts of the world, mobile phones are the most reliable fastest and easiest means of communication. Mobile phones communicate by transmitting radio waves through a network of fixed antennas called base stations. Though Information is the pivot around which development revolves.

Problem Statement

The use of mobile phones for communication is rapidly growing in Nigeria, especially With the deregulation of the telecommunication sector, national productivity became enhanced while communication became highly improved which led to narrowing the

gap between the Urban and Rural dwellers. Most Nigerians use their GSM phones to communicate with one another irrespective of time and distances on account of wireless technology. Given the large number of mobile phone users, it became imperative to investigate and understand the mobile phone usage in Nigeria and it Ups and Downs.

LITERATURE REVIEW
Mobile/Cell Phone

Mobile phone is an electronic telecommunications device, often referred to as a cellular phone or cell phone. Mobile phone can be defined as a portable telephone device that does not require the use of landline. It utilizes frequencies transmitted by cellular towers to connect the call between two or more devices or connect to a wireless communications network through radio wave/satellite transmissions. A mobile phone also called mobile cellular telephone, or cell phone can be regarded as an electronic device used for two-way radio telecommunication over a cellular network of base stations known as cell sites. Most mobile phones provide voice communications, Short Message Service (SMS), Multimedia Message Service (MMS), and provide Internet services such as Web browsing and email etc.

A mobile phone allows its user to make and receive telephone calls to and from the public telephone network which includes other mobiles and fixed-line phones across the world. It does this by connecting to a cellular network provided by a mobile phone operator, allowing access to the public telephone network. In addition, modern mobile phones also support many additional services, and accessories, such as SMS (or text) messages, e-mail, Internet access, gaming, Blue-tooth and infrared short range wireless communication, camera, MMS messaging, MP3 player, radio and GPS. Low-end mobile phones are often referred to as feature phones, whereas high-end mobile phones offer more advanced computing ability.

Mobile phones have changed the way we live our lives and to many, the prospect of a world without voice calling, text messaging and mobile Internet access is an unsettling one. More so, it serves as the key of modern social institutions in the world and it plays vital role in modern society and information age.

As we all know, mobile phones didn't just happen overnight. They grew up, just like us where by it evolved over different generations as we can see below.

The Different Generation of Mobile Phone Technology
0th generation

Pre-cell phone mobile telephony technology, such as radiotelephones that some had in cars before the arrival of cell phones. Communication was possible through voice only. These mobile telephones were usually mounted in cars or trucks early 1924 to 1973

1st generation

Analog cell phones. A voice call gets modulated to a higher frequency of about 150MHzand it is transmitted between radio towers. This is done using a technique called Frequency-Division Multiple Access (FDMA).Technologies: FDMA (Frequency Division Multiple Access) NMT (Nordic Mobile Telephone) AMPS (Advanced Mobile Phone System) Problems: No security Prone to distortions. It comes up around 1980 to 1996

2nd generation

(1G) Digital cell phones Speed: 10kbits/sec Time to download a 3min MP3 song: 31-41 min Different Services: digital voice calling short message service (SMS)Standards: GSM CDMA TDMA Benefits: consume less battery power improves the voice clarity reduces noise in the line secrecy and safety to the data and voice calls early 1992 to 2000+.

3rd generation

(2G) networks were built mainly for voice data and slow transmission. Due to rapid changes in user expectation, they do not meet today's wireless needs. 3G networks provide the ability to transfer voice data and non-voice data over the same network simultaneously. Applications: Internet, e-mail, fax, e-commerce, music, video clips, and videoconferencing. The aim of the 3G is to allow for more coverage and growth with minimum investment from 2001+.

4th generation

(4G) development focuses around achieving ultra-broadband speeds, competing with and in some cases outstripping the speeds provided by our home internet connection. 4G average speeds are targeted to be in the 100Mbps to 1Gbps range, faster than 3G networks. A 4G phone can run on a 3G network just fine, and it happened early 2009 to 2012+.

5th generation

(5G) is a technology used in research papers and projects to denote the next major phase of mobile telecommunication standards. It is a real wireless world that is a complete WWWW: World Wide Wireless Web. A 5G technology has extraordinary data capabilities and has ability to tie together unrestricted call volumes and infinite data broadcast within latest mobile operating system.

In today's world, Mobile phones go beyond just voice communication and provide a multitude of other features and services including text messaging (SMS), multimedia messaging (MMS), photo display and recording, video playback and recording, calendaring, etc. that satisfy different owners need.

Mobile Phone in Nigeria

In 1992, the Nigerian government through decree No. 72 of December 31st established the National Communication Commission (NCC) and empowered it with the duty of formulating strategies and policies to ensure effective and rapid development of the telecommunication sector as Nigeria's telephone density and penetration remained poor.

In 2001, the GSM was introduced into Nigeria. The Nigerian Communications Commission (NCC) issued four wireless licenses to MTN Nigeria Communication, Econet Wireless Nigeria Limited (now Airtel), Communications Investment Limited (CIL) and state-owned NITEL at the fee that was determined by NCC. CIL, however, had its license withdrawn because of inability to meet with the deadline for payment (Nigerian Tribune, 2003). The fourth GSM provider Glomobile (Globalcom) did not commence provision of mobile phone services until August 2003.

By 2002, mobile subscribers in Nigeria stood at 1.5 million (Nigerian Tribune, 2003) but by the end of 2003, MTN alone had 1,650,000 active subscribers on its network, Econet Nigeria (Vmobile) had subscriber base of over one million, new entrants Globalcom and M-Tel (owned by NITEL - Nigerian Telecommunications Limited) have not less than one million subscribers (The Guardian, 2004). The pervasive growth of GSM in Nigeria is a bold pointer to how much it impacts on life itself; the growth in telephone penetration in Nigeria and the future potential for even more growth and pervasiveness tends to shift the paradigm of thought and maximize the fears of what was once morbidly referred to as the digital divide.

Table 1: Mobile phone Subscribers by operator in September 2011 and 2012

S/No	Operator	Subscribers In Sept 2011	Subscribers In Sept 2012	Share of mobile market
1	MTN Nigeria Communication	41,107,494	45,639,749	42,7%
2	Globacom Limited	19,854,111	22,260,822	20.8%
3	Celtel Nigeria Limited (Airtel)	16,683,946	21,101,758	19.7%
4	EMTS Limited (Etisalat)	9,513,437	14,392,531	13.5%
5	Other mobile including CDMA	5,473,651	3.497,890	3.3%
6	Type	2011	2012	%

Source: NCC, Sept 2012

Today one can positively say that the number of mobile phone users is growing very rapidly to the extent that Nigeria has now become among the fastest growing mobile phone market in the world. It was also indicated that there is rapid growth in mobile phone subscription and usage in the country. In a latest development, NITEL rebrands as Ntel promise to deploy 4G Generation network to Nigeria's telecommunication market. Abbas (2015) [1] stated that Nigeria is in extreme data hunger with just 92.7milion active Internet users as at June 2015 but surprising only 27.6milion of the users access Internet on 3G/4G network. It indicates that more than 65milion go on Internet on 2G which means we are losing the broadband race by using 2G network since 4G is the heart of broadband."

Use of Mobile Phone

People use mobile phone in variety of ways which include among others: Call making, Send and receive messages, Send and receive email, taking picture, Record video, Record audio, Download application, Reading News, Music player, Games, Documents viewer, Internet access, Television, Online Mobile banking, Computer Adjunct, Multimedia messaging, Health/Medical information, Setting an alarm clock, Social network, Checking Time, Checking Face book and Using Calculator etc.

In Nigeria today, mobiles fill the gap that other poor or non-existent infrastructure in the country leave wide open. So it is not surprising that many people had a mobile phone at their discretion right from a lower class such shoe shiner, wheelbarrow pusher, sugar cane seller, petty trader, Okada rider, laborer or office messenger etc. to the middle class and up to the upper class.

An official statistic by Nigerian Communication Commission (NCC) revealed that there are about 150,660,631 active mobile phone connections in Nigeria as at the end of third quarter 2015. Mobiles are often the fastest and only way of communication without having to travel under difficult circumstances. Today almost everyone uses mobile phones for one or the other purposes. More so, Mobile phones can be a helpful or a hurtful depending upon the attitude and use pattern of the owner.

Ups

- Many Mobile phones allow access to the Internet, which can help to obtain answers to

questions very quickly and easily. This can help with studies as well as other simple daily questions like daily weather or finding directions to go someplace new.

- Mobile phone uses have also taken a lead role in medicine field as well. Now days a Bluetooth protocol of mobile phone is being used to develop a generic and real time Internet telemedicine aid system, which uses very high radio frequency to heal a patient. This type of method of healing a disease has been already tested on several volunteers with satisfactorily results. These tests have been carried out by continuously recording of electrocardiograms (ECGs) of several persons

- Some Mobile phones have tracking devices in which a parent or guardian can track where their child is to ensure that they are safe and where they are supposed to be at any moment.

- Use of cellular phones in recent years has encouraged the development of significantly advanced health applications. In what has become known as cellular phone-based medical informatics (CPBMI) for healthcare, cellular phone-based personal healthcare tools aimed at prevention, diagnosis, and treatment of diseases that are used to enable communication between healthcare providers and patients.

- Mobile phones have altered our relationships by enhancing the way we relate with family, spouses, friends, relatives, colleagues visa-vies students and instructors. By means of text, phone call or through wide social network, more than half of the average person's calls and texts go to only four to six different people in order to promote their relationship.

- Mobile phones allow friends and relatives to stay in touch. If anyone needs to stay elsewhere or needs a ride, they are able to call their relative or friends and let them know by simply using their cell phone. This is especially important because pay phones are become more and more rare.

- Mobile phones can be important in emergency situations as well when one needs to quickly get in touch with first aiders or right helper vice versa.

- Mobile phones can help teach children responsibility. Parents can use it to encourage and set guidelines for their children such as staying within a certain minute or text message range. Children are also responsible for their individual cell phone and parents can set rules about misplacing it or breaking it.

- Mobile phones enable new services and applications that provide opportunities to generate income. Furthermore, the access to information and increased communication through mobile communication facilitates coordination resulting in productivity gains. Mobiles also enable immediate responses to crises and shocks that without them may lead to destruction of goods and services or machinery.

- Mobile phones can be a learning tool for the illiterate (adults) people visa-biz literate ones as they can learn a new form of technology as well as explore the Internet if the phone has the capability to do so.

- It plays a vital role toward improving level of literacy, numeracy and participation in education directly or indirectly among young adults and illiterate people.

- The use of a mobile phone is not limited to speaking alone it is being used in making video, recording information especially journalist and transmitting it to a phone or a computer as was being done by a computer. Mobile phone can be connected to a computer to download information from it or vice versa. Other facilities like on line chatting, conferencing, sending text, transferring MMS information by a mobile phone are compatible with a computer

- Mobile phones change the concept of social space / time among social relationship and provide new way to form and strengthen relationship/interactions. It is the single most important device that let people control their relationship with others and to self-authors their image and lives.

- Parents can set guidelines for their children on when they are able to use their cell phones. This can help teach them discipline, time management, and also allow them to learn to enjoy their time without using their cell phone.

- Person who can drive will be able to have a phone on hand in case they face any type of emergency situation on the road.

- Mobile phone with different memory capacity is used to download and store several information of different format. The information might be listened/view every now and then with the use of earpiece or not which include music, tutorial, educational videos etc.

Downs
- Cheating with cell phones has become a huge issue in many schools. Nigeria students can text answers under their desks during tests. Since many phones are now Internet compatible, students can sometimes even use a search engine on their phone to find answers to test questions. If the child is caught cheating they can face serious consequences from the authority.

- Telling lie on cell phone has become a fashion of a day. Most Nigerians use to lie on phone call or text to take cover or easily achieve their goals, because there is absence of face to face interaction where by one find it at ease to do what he/she want which is totally out of line.
- Mobile phones have become a veritable tool for fraudsters who disguise their identities and perpetuate their nefarious acts.
- Some people can experience withdrawal symptoms typically associated with substance abuse, such as anxiety, insomnia and depression, when they are without their phones. They use to be addicted to their cell phone in which they can't do (survive) without. They have no control over the use of their cell phone and they become strongly irritated, angry and unhappy by anyone who interrupted them from gaming, surfacing and communicating etc. with the phone even in toilet.
- Mobile phones can be very distracting from more important events in an individual's life even if it is set on vibration such as studying, prayer, doing homework, or even crossing the street etc. Studies have shown that youths and children are more likely to be hit by a car or motor cycle if they are talking or texting on a cell phone while crossing the street. Since cell phones can connect them to their friends and the Internet, they can take away from doing the right things at a right time.
- Usages of mobile phones adversely affect people concentration, psychosocial wellbeing and their physiological health which can drive many to be tempted to call or text while driving which can severely increase their risk of an accident.
- Mobile phone use is affecting adolescents' quality and quantity of sleep, their attention span and their academic performance. This has further caused attention deficit, difficulties in focusing and a negative impact on adolescent appropriate life achievements. It is believed that mobile phones have the potential of occupying a central place in the daily lives of youth.
- Network/connectivity problem with cell phones. One want to communicate very essential information at a moment but it won't be possible due to connectivity or network failure which resulted to unhappy condition.
- Rampant and irrelevant text messages/ call from cell phone operators and charging without delivery of text message visa-biz exhausting customer money without benefiting any services is dishearten and discouraging.
- Nigerians inability to charge phone battery due to inadequate electricity power supply.

- Mobile phones can also be used to engage in inappropriate behaviors. Taking inappropriate pictures and then "texting" them to a boyfriend or girlfriend. Sending sexual messages or pictures to another person's cell phone to achieve an undesirable motive which is a growing problem more especially among youths. If a person does not have any blocked numbers on their device they can receive message which may include sexual explicit messages from anyone who has their number and chooses to send them the message or picture.
- Most Nigerians spend hours playing different games in the phone namely real football games, soccer games, snakezia, car race, puzzle games etc. They enjoy these games to an extent of neglecting their academic work, assignments, homework etc. They even discuss these games at their business places, at workshops and schools etc. encouraging others how interesting the games were, storing games in the memory instead of their studies or business formulas.
- The constant use of text messages on the mobile phone, contributes to the poor usage of proper English and improper/unconventional writing (illegal short hand) by youth, children and student. This issue use to appear even in the student examination script and formal letters etc**.**
- Most of the students don't study again because of mobile phone, they rather spend time in chatting or to go with people elsewhere which led them to sleeping during class hours or involve in exam malpractice during examinations. Some make use of the calculator in the mobile phone, while others store some information in it. The worst of it is that others use it to send objective answers to those in the examination hall, which may not be correct at the end of the day. This can end the student's career if caught, as exam malpractice is a punishable offense.
- Through cell phone Nigerian youth/ children can also receive calls from anyone who has their number unless there are specific blocks on their phone. Parents have no way of knowing who is saying what to their children, where by illegal appointment that lead to anti-social act may occur.

CONCLUSION AND THE WAY FORWARD

The goal of this study was to asses mobile phone use in Nigeria from inception to date**.** Mobile phones have been helpful to some extent because information is power. When a person is not informed, he/she will be deformed, and when deformed, the person cannot perform. Uses of mobile phone good or bad are two side of a coin. Every good thing when

abuse can be harmful, so it is with mobile phones. Minimizing the amount of time spent using mobile phone, speaker mode use or a headset use and public awareness on proper cell phone use pattern would help toward having optimally benefited from having mobile phone. A user has to consider when to use it, How to use it and what to use it for and make sure he/she optimally benefit from having mobile phone because it is the next biggest technology device ever to hit the globe.

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