

Hazards of mobile phones essay sample

[Technology](#), [Mobile Phone](#)



INTRODUCTION

1. Global System Mobile (GSM) phones have brought a rapid revolution in the field of communication and altered our way of life to an unimaginable degree. Anytime some old member of a family applies tales regarding prior modes of communication like beepers, postal letters and telegrams, the children of Twenty-First Century feel really surprised. So, it's a fact that the Mobile phone technology has started a new period in Nigeria that has uprooted the old fashioned lifestyle entirely. However, it doesn't mean this technology has no effect on people adversely. Everything on the planet earth has two attributes; advantages and hazards. The same will go true for the phone technologies. The technology is effective as well as disadvantageous. In this paper, the advantages will be considered towards the associated hazards in order to obtain a accurate understanding of the effects of mobile phones on individual life. AIM

2. The aim of the paper is to highlight the hazards associated with Global System Mobile communications.

SCOPE

3. The paper will cover:
- a. Launching of the GSM Communications in Nigeria
 - b. Advantages of Mobile Phones
 - c. Effects of Mobile Phones in Humans

LAUNCHING OF GSM COMMUNICATIONS

4. In Nigeria like in all other developing countries the launching of Mobile phones has been instrumental to the rapid increase in telecommunications accessibility. Before digital telephone was introduced, the country had less than 500, 000 telephone lines. Cell phones were available in Nigeria since 1990s. These were analogue phones and were deployed by NITEL, the only National Carrier then. The reason for the low success of these analogue mobile technologies was because they were expensive and seen as status symbol rather than a necessity.

However, in 2001, a new mobile telecoms technology known as Global System for Mobile communication (GSM) was launched. GSM was one of the Second Generation (2G) technologies in the World. Econet wireless (now Airtel) was the first GSM network to go live in Nigeria. Later joined by MTN, Glo and now recently, Etisalat. 5. In Aug 2008, the number of telephone lines was put at about 56. 5Million lines. Mobile lines accounted for 55. 5Million lines (55 Million of which is credited to GSM and 500, 000 to CDMA). This shows that fixed line figures was One Million as at Aug 2008. To appreciate the rapid growth, Nigeria is the Second Largest users of Mobile users in the Sub – Saharan Africa with 148, 161, 358 lines connected as at April 2013.

ADVANTAGES OF GSM PHONES

6. The GSM revolution began in 2001 and has changed the face of information and communications technology in Nigeria to an easy and fast communication system. People are separated from the families and loved ones for a long period of time. Therefore, mobile calls are an easy and fast way of keeping in touch with them. They are also lifesavers in any

emergency. Our social lives with our loved ones, relatives and friends are kept alive through phone calls. 7. Reduce the Risk of Unnecessary Travelling. The impact is also felt in the way businesses and activities are done these days, it has reduced the risk and cost of travelling long distances. Since businesses and other activities are be carried out from our mobile phones. Business are being done nowadays at speed of thought as envisaged by Bill Gates. Cooperate organizations like banks for example; have integrated GSM technology into banking operations known as Mobile Banking. Examinations, purchases, and any other activity are mostly conducted through mobile phones and other value added services like internet, picture messaging, downloads etc gives the users an option of transacting businesses without making unnecessary travels. Mobile phones have become an essential in our lives.

8. Provision of Amenities. Socially, Service providers and Phone companies have provided some amenities to the communities where they equipments are located. Some have provided educational facilities, AIDS campaign awareness, Information Technology(IT) labs, hospitals and sponsorship of several events. One of such events is the 2010 Globalcom (Premiership League were funds are set aside to development young stars in football). Also, many individuals have also benefited from these companies by being their ambassadors. 9. Massive Subscriber Growth. Since the GSM launch, mobile telephony has rapidly become the most popular method of voice communication in Nigeria and as a source of massive subscriber growth. Development has been so rapid that Nigeria has been described as one of

the fastest growing GSM markets in the World. Indeed these developments have been explosive; according to the statistics from the Nigerian Telecommunications Commission (NCC) journal, Nigerian have about 116, 325, 790 active lines from 2001 to April 2013.

Expectations are that these figures would rise due to massive expansion programmes launched by the operators. Efforts by the operators to improve their various networks have continued to pay off as subscribers heave a sigh of relief from the cases of dropped calls, inadequate coverage and so on which characterized the early stages of mobile phones to ensure employment regularly. 10. Creation of Employment. The introduction of GSM has helped in the creation of employment with over 25, 000 skilled jobs and millions of indirect jobs for people who are engaged in various services offered by GSM operators.

It is now a common phenomenon in urban and rural areas where there is coverage to see men and women sitting under an umbrella provided for them by GSM operators making calls for people at a token. This small call centre initiative is today providing food to greater percentage of unemployed Nigerians, aside this are others who are trading in recharge cards and other products of GSM operators. The sector is one of the major providers of employment to both skilled and unskilled manpower in recent times. A great number of people especially the young graduates have been given employment in the GSM companies where they make a living and are useful to their families. This business is popularly known as business centers or call centers.

EFFECTS OF MOBILE PHONE IN HUMANS

11. The Mobile Phone boom in the last decade is alarming and is associated with enormous hazards. They transmit and receive Radio Frequency (RF) signals in order to communicate. The RF signals from these phones fall within the microwave part of the electromagnetic spectrum. The radiation is referred to as microwave radiation or electromagnetic radiation.

Consequently, our landscapes and cities are covered by Base stations that emit microwave signals used for communication. In order to make this work, there are at least 50, 000 Phone Towers and Base Stations that emit microwave radiation. The amount of RF energy a mobile phone user is exposed depends on the technology of the phone, the distance between the phone's antenna and the user, the extent and type of use and the user's distance from the towers. 12. Limited Safety Standards. Safety Standards in mobile phones are limited and do not completely protect your skin from the microwaves. The safety standards only protect from the heating effect of the microwave radiation, called the 'thermal effect'.

The 'no damage without heating'-theory can be considered old and backward. Many research studies have shown that non-heating, or non-thermal, microwave radiation has a profoundly negative effect on the human body. Dr G. J Hyland, an authority on the potential health effects of non-thermal microwave radiation, states that; "there is thus absolutely no justification for claiming that Mobile Telecommunication Technology is safe and does not constitute a risk (both directly and indirectly) to public health". This counts for why, use of mobile phone is not allowed in hospitals,

airplanes, petroleum and gas filling stations that the radiation might interfere with the electronics or equipment. After all, the human body is an extremely sensitive electrochemical instrument that uses various wave-based electrical processes (e. g. brain waves) and each characterized by a specific RF. 13. Negative Health Effects.

Electromagnetic waves alter electric activity of the brain which have negative effects such as disturbance in sleep, difficulty in concentration, fatigue, and headache; and reduce the production of melatonin. A study by Swedish researchers suggests the link between phone use and Alzheimer's disease. Phones damage key brain cells and could trigger the early onset of Alzheimer's disease. They have found that radiation from phone handsets damages areas of the brain associated with learning, memory and movement. Their study was performed on rats, which were exposed to radiation equivalent to that of a phone for only two hours. The brains were examined after 50 days, and the researchers found an abundance of dead brain cells in the exposed rats. Furthermore, studies have linked cell phone use with brain cancer, mouth cancer and leukemia. a. Infertility in Males. The 2008 study by the US Federal Communication Commission titled ' Effect of phone usage on semen analysis in men attending infertility clinic: an observational study' came to the following conclusion that the regular use of phones by male is associated with a decrease in semen quality.

The decrease in sperm count, motility, viability, and normal morphology is related to the duration of exposure to the phone radiation. The longer one uses a mobile phone per day, the greater the impact on the sperm. Its use

could therefore be considered to be a cause of infertility in males. b. Effect on Children. Children that grow up in our new mobile phone world are exposed to microwave radiation from the moment they are in the womb. However, the effects of microwave radiation on infants are unknown to most parents. The Stewart Report is a report commissioned by the British Parliament in response to fears that mobile phone use could be linked to memory loss, and even Alzheimer's Disease.

It explains the effect of mobile phone radiation on children; eg a One year old could absorb around double RF and a five year old around 60%, more than an adult. Additionally, since children are being exposed to RF radiation from base stations (and from mobile phones) from a younger age than adults, they will have a longer time in which to accumulate exposure over the course of their lives, and a longer time for any delayed effects of exposure to develop. 14. Risk of Accidents. Use of mobile phones to receive, make or read text messages while driving increases the risk of accidents. This is due to the inability of the driver to fully focus on driving while receiving or stopping a call. The risk of a collision was about four times greater when the driver is discussing in the Car while driving then moving in a heavy traffic jam and making call. There is a tendency to exhibit impaired judgment which may lead to a poor driving response causing accidents.

Use of hands-free and eye piece is no less risky than holding the telephone to the ear with one hand while driving. Consequently, the FRSC Safety journal of 2010 published that 50% of accidents on Nigerian from 2005 – 2010 were caused by use of phones while driving especially at nights. 15.

Increased Stress Level. Uncontrolled use of Mobile phones has been the major factor in increasing stress level in an individual. This is because, the number of times, phones ring, text messages and emails read either mostly affects Our Blood Pressure. Regular mobile phone users suffer more stress than those who rarely or never use them. These raise stress level at home and work, causing official work to spill over to personal time. 16. Effect on the Environment. Mobile Phones and accessories contain concentrations of toxic heavy metals or other metals including Cadmium, Lead, Nickel, Mercury, Manganese, Lithium, Zinc, Beryllium, Copper and Arsenic.

These are considered to be; persistent (Non-degrade) and Bio-accumulative (Build up in fatty tissue and can reach toxic levels over time). Once these metals are allowed to reach the environments, it ruptures or corrodes in significant quantities and may leach into the water courses and contaminate the soil. Metals build up in the soil and they can reach then enter the food chain in sufficient concentrations thereby causing health problems when consumed. Chemicals such as these are associated with a range of adverse human health effects, damage to nervous system, reproductive and developmental problems, cancer and genetic impacts. Dumping of mobile phones in our surroundings creates a long term pollution risk to the environment. 17. Addiction. Addiction according to the Concise Oxford Dictionary is defined as physically depending on something or something that interferes with you living your life. With the Mobile phone penetration of more than 100%. Some individuals have more than One phone and line and are usually distracted due to extensive and uncontrolled use.

They are more predominant in the Young ones. These days, phones have been found to be their best companions rather than their books, friends or families. 18. Immoral Ideas. Mobile phones have increased the rate of cyber, and street offences thereby causing a breach in moral attributes. Lots of immoral, so called love tale, phonographic films, offensive text messages etc discover their existence through the misuse of this technology. Softwares installed in the phones are not used for the rightful purposes, thus uncontrolled and adult scenes could be wrongly accessed by young minds. 19. High Cost of Living.

High cost of living is closely associated with the maintenance of mobile phones and payment of recharge bills. Prior to the event of GSM, families need not budget of worry on the phones and recharge cards.

Telecommunications also brought an increase in the expenditure of households or individual because, it's an added responsibility. Due to most Nigerians have more than One phone and numerous lines, the tendency of contain recharging of the lines would be required in other to constantly communicate with our loved ones. Bread winners of families have to budget about 10% of monthly income for the recharging of lines regularly depending on the usage.

POSSIBLE WAYS OF REDUCING GSM RADIATION

20. The GSM radiation could be reduced through the following:

- a. Reduce the use of Mobile phones
- b. Always put the phones on silent or switched off in sensitive areas

- c. Limit the use of phones by children
- d. Use hands-free or ear piece when making or receiving calls
- e. Ensure there is no Mobile Phone Base Station close to your living area or Child's School
- f. Report any case of location of GSM towers and Base stations to the Federal Ministry Environment

CONCLUSION

21. In conclusion, exactly One Decade after the Nigerian Communications Commission gave licenses to 2 major telecom operators, MTN and Airtel. Prior before now, telecommunication services were mainly enjoyed by a minority few because telephone was exclusive preserve of the Elite. However, this failed to provide the necessary respite to the masses as many had unpalatable experiences at NITEL public phone booths, as they had to wait several hours often at nights to make calls.

Mobile phones should be used with good cautiousness, only as a medium of communication and not a mode of harassment, disturbance, distraction or spying. Earlier days, when we are out of home or office, we need to search for a public telephone booth to make a phone call, but now, just pick up your mobile phone and dial. There are many disadvantages of using mobile phones but it's up to us on how to manage our devices. Finally we can see which mobile phones are not only helpful, however they are also dangerous. Nicely, it will not be wrong to say that not one of the technologies is harmful by nature, this will depend on us whether we utilize it favorably or even adversely.

REFERENCES

1. [www. controlyourimpact. com/2008/03/disadvantages-of-mobile-phones](http://www.controlyourimpact.com/2008/03/disadvantages-of-mobile-phones) from 5 – 17 Mar 2008.
2. [www. wiki. answers. com/Questions](http://www.wiki.answers.com/Questions)
3. Hardell L, Carlberg M, Hansson Mild K. Pooled analysis of case-control studies on malignant brain tumours and the use of mobile and cordless phones including living and deceased subjects. International Journal of Oncology 2011; 38(5): 1465–1474. [PubMed Abstract]
4. [www. ncc. gov. ng](http://www.ncc.gov.ng)
5. [www. frsc. gov. ng](http://www.frsc.gov.ng) and [frsc. intranet. org](http://frsc.intranet.org)
6. [www. saching. com](http://www.saching.com)
6. [Glo. gov. ng](http://Glo.gov.ng)
7. [ict. tekinuzu. com/mobile-phone-nigeria. html](http://ict.tekinuzu.com/mobile-phone-nigeria.html)
8. [www. studymode. com/essays/Disadvantages-Of-Mobile-Phones](http://www.studymode.com/essays/Disadvantages-Of-Mobile-Phones)