Olatunji Oluwasetemi Melody

Mechatronics engineering

19/ENG05/051

**Rural Telecommunications Access in Nigeria- Issues and Challenges**

***Abstract***

*Rural telecommunications access has to do with the provision of telecommunications infrastructure in rural communities for the purpose of connectivity within the communities and the rest of the world. Despite the rapid growth of the telecommunications sector, efforts have been concentrated in the he urban areas, thus leaving the rural ones to contend with low access to telecommunication services. In this essay, issues and challenges of the provision of telecommunication access in rural areas are stated. Furthermore, the essay briefly proffers solutions to meeting telecommunication needs of rural areas in Nigeria.*

* ***INTRODUCTION***

Telecommunication basically means the sharing of information over a distance. It involves conveying messages by electrical means beyond the limits of hearing distances. Its theory evolved over the years from mathematical theories and empirical formulas derived from experiments on electricity and magnetism to the invention of telegraphy, telephony, wireless communication, computer conductors and manual exchanges, all forming parts of a communication network. From the 20th century till date, efforts have been geared towards the development of appropriate improved technologies for achieving optimum quality of service and adequate quantity of facilities and services in order to meet the realities and needs of the age. In Nigeria, telecommunication services can be traced back to the colonial era when the colonial masters had to establish communication services their home government in London. Since then, Nigeria has witnessed positive transformation in telecommunication sector, though with little or nothing to contribute to the development of hardware.

 Rural telecommunication access has to do with the provision of telecommunications infrastructure and universal service in rural communities for the purpose of connectivity within the communities and with the rest of the world. Providing telecommunication infrastructure in rural areas is halted by many challenges, some of which are related to technological issues. However, the focus on the technological aspect essentially concentrates towards advancing the technology. Although technology is principal, we should not neglect other factors that have tremendous effect on service provision. These include maintenance of quality of service delivery, service distribution, rural-urban shift and lack of supporting infrastructure such as roads and power grids.

* ***ISSUES FACING TELECOMMUNICATION ACCESS***

Provision of telecommunications access to the rural communities in Nigeria has, at various times, suffered setbacks due to corruption and monstrous creations of the past governments in Nigeria. The paths to achieving universal access have led to a resounding failures and wasted resources. However, there are so many issues and challenges affecting service provisions to rural communities apart from the aforementioned.

* Infrastructure deployment cost:

The term infrastructure has many features and the concept of telecommunication infrastructure is a multi-dimensional concept. For example, electronic infrastructure may include the base transceiver station, microwave radio units, routers, signal processing and transmission. However, things like the tower, BTS sites, shelter for the electronic devices, power generating system, air conditioning are all non electronic infrastructures. Rural infrastructure is of great importance in network and services provision. The high cost of deployment of network infrastructure has been the main problem that leads to high prices in tariff since the network operators would have to recover their investment.

The issues affecting infrastructure deployment includes transportation, among others. Research efforts have shown that about 5% of rural roads in Nigeria could be said to be in good condition. This is a terrible situation as the furniture of the roads make it virtually impossible for movement of goods. Access to electricity has also been a major challenge according to the report of international energy agency about 1.4 billion people in the world lack access to electricity. Out of which 507 inhabitants were from Africa. The situation is not different in Nigeria in which about the 53% of the population lack access to electricity. The lack of access to power grids poses a significant barrier as the base stations used in cellular system consumes a lot of energy.

* Literacy and telecommunication technology awareness:

Though Nigeria has 13% of the world population, the country has only 2% of world telephone lines and 1% of internet connectivity measured in terms of number of Internet host and internet users. Telecommunication technology awareness in rural areas is moving at a snail’s speed. Rural communities in Nigeria are faced with problem of poor general and computer literacy and lack of awareness of other telecommunications services beyond telephony. Telecommunication systems are only available on a limited scale and this makes us wonder whether these communities can utilize telecommunication services.

* Security and socio-political challenges:

Rural communities are not left out of the insecurity challenges facing the country. Insecurity affects telecommunication access very severely and the business owners and operators have little or no direct control over the situation. In Nigeria the problems range from theft of equipment to organized armed robbery, vandalism of installation equipment to the blockade of installation of telecommunication infrastructure. All these discourages investment as it makes business unattractive to telecommunication service providers. It also increases the cost of doing business, either through direct loss of goods and properties or the cost of taking precautions against business risks and uncertainties. The insecurity situation, in a number of cases, has halted business operations and has caused outright closure of many telecommunication facilities in a bid to protect lives and business properties.

Telecommunication firms usually rely on availability and regular supply of resources for smooth running of their operations. Security problems cut off supply of such resources. Insecurity promote fear, thereby limiting people's ability to work effectively.

* NCC'S regulatory challenges:

NCC witnessed a flurry of activities in the telecommunication industry in its first four years of existence. Today, it has come a long way from being a government agency with minimal significance to a responsible regulatory body recognized nationally and internationally. Nonetheless, the organization has been faced with some regulatory challenges. For example, the approval to deregulate the telecommunications sector translated to licensing several operators in order to meet demand quickly. The need for stakeholders at the federal, state and local levels, both in public and private sectors to work with NCC is necessary. This led to a highly fragmented market that became difficult to regulate and complex to understand, thus tasking the NCC.

* ***CONCLUSION***

Telecommunications sector is found to be one of the fastest growing sectors in emerging economies. However, providing the telecommunication infrastructure in rural areas is faced by many challenges. Rural development can be said to be sustainable if there is a process of constant change and transformation of the rural areas, encompassing a wide scope of processes and programs.

Government should create support mechanisms to support private-sector investment in off grid electrification programs. Immediate interventions for the regulations may include extending Nationwide coverage and penetration of telephone services evenly, more active enforcement activity, improving weak infrastructural base, encouraging local telecommunications hardware manufacturing industries, cooperation among government agencies and sufficient information for policy planning and regulatory rule making.