

Rethinking African Development: A Critical Assessment of Recent Developments in the Telecommunications Sub-Sector in Nigeria

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KEYWORDS Development. Technology. Infrastructure. Public-Private Partnership. Telecommunication

ABSTRACT Technology infrastructure which comprises energy, transportation, communication, water supply and human capital is vital prerequisite for economic and industrial development and growth. The level of technological development of a nation is evaluated on the ability to acquire, adopt, adapt, imbibe, diffuse and innovate technology as well as technology infrastructure in place. African countries are classified as underdeveloped on the basis of the above criteria. One reason that is often adduced for the poor state of economic, industrial and technological development in Nigeria is the excessive involvement of the public sector in virtually every aspect of development – health, education, industrialization and provision of technological infrastructure. Government involvement is often characterized by inefficiency, poor performance and poor accountability. Focusing critically but exclusively on the telecommunications sub-sector, the paper examined the performance of public - private sectors in provision of this technological infrastructure. The paper argued that telecommunications sub-sector which hitherto remained poor, inefficient, inaccessible and grossly underdeveloped has witnessed significant improvement with private sector involvement. The paper therefore recommended that in as much as the role of private sector is welcomed in the telecommunications sub-sector the consumers must be protected against undue exploitation and arbitrarily price increases through periodic monitoring of these operators.

INTRODUCTION

The concept of development may defy any precise definition partly because it is multi-dimensional in meaning and multi-disciplinary. For economists for instance, development implies increase in production and capital investment (Rostow, 1967). Political scientists on the other hand, conceive of development as the ability to enhance the capacity of the political system (Coleman, 1968; Palmer, 1988). Sociologists however, conceive of development as change process which results from structural differentiation (Smelser, 1954; Alo, 1986). On this note one can say without reservation that development is associated with the idea of progress, improvement and advancement. It is a systematic and gradual ascension from lower to higher stage; and from simple to complex forms and must be accompanied by qualitative and quantitative improvement in the quality of life (Lenin, 1978).

To Nnoli (1978) development is a checklist of technical artefacts such as road network, electricity supply, primary and tertiary institutions, hospitals among others. By extension development goes beyond the availability of artifacts, increase in economic parameters or indices such as *Per capita income* (PCI), Gross Domestic Product (GDP) among other variables rather development, according to Rodney (1972) is

man's attempt to conquer his environment and utilize the said environment to his advantage.

Therefore, by definition, 'development' has to do with both qualitative and quantitative changes in the structure and performance of the forces of production through eradication of poverty, disease, hunger, inequality and unemployment, among other social problems. Until all these are either eradicated or adequate solutions are proffered, it is not enough to conclude safely that a community or society is developed.

It is also important to note that contrary to some views, 'underdevelopment' does not mean absence of development. This is because every society has attained a certain level of development at one particular period or another. All the countries categorized as underdeveloped, according to Rodney (1972), were exploited by others, and the underdevelopment with which the word is currently preoccupied, is a product of imperialist and colonialist exploitation. In addition, underdeveloped countries resemble, in many important respects, the past of the now developed countries (Isamah, 2002; Olutayo and Bankole, 2002).

In a nutshell development has also been defined as "a sustainable increase in living standards that encompass material consumption; education, health and environmental protection" (World Bank, 1991: 31). Indicators of development

include; the ability to meet the basic needs for food, education and health care. Economists have traditionally considered an increase in *per capita income* to be a good proxy for these indicators of development. They assume that growth in per capital income induced by growing productivity is the engine of development (Okun and Richardson, 1961; Herrick and Kindleberger, 1984). This raises a critical question of what drives productivity? The answer according to The World Bank lies in the technological progress (World Bank, 1991).

Industrial development is a process by which a nation acquires a competence in the manufacturing of equipment and products required for sustainable development and technology is considered the prime factor. Industrial development and technological development are interdependent and interrelated. While technological development is prerequisite for industrial development; the industrial sector is the major propelling force for technological development and innovation (Ernst, Ganiastor, and Mytelka, 1994). However in a developing economy like Nigeria, neither can flourish unless there is adequate technological infrastructure in place (Sutcliffe, 1971; Hodder, 1973; Kirkpatrick, Lee and Nixon, 1985).

Technological infrastructure is an enabling environment required for rapid growth of technological and industrial development and comprises physical and human variables like energy, water, transport, communication, financial and human capital (Isamah, 2002; Afonja, 2003). Ability to provide and effectively apply this input is a direct indicator of the potential for the development of any nation, and is primarily differentiating factor between the various levels of development worldwide. The role of private sector in providing technological infrastructure varies significantly between nations, and on one extreme is the group of nations (for example United States of America) in which the private sector provides virtually all technological infrastructure while at other end is the group in which the government is responsible for nearly all (for example China) (Arikpo, 1967; Thirlwall, 1989; Afonja, 2003). In between is a group comprising mainly developing countries which are in varying degrees of transition from public to private ownership of technological infrastructure (Kayode, 2002). Nigeria falls in this last

category. Therefore the objective of this paper is to examine critically some current developments in the telecommunication sub-sector with particular reference to public-private involvement within the context of global development.

PUBLIC-PRIVATE PARTNERSHIP IN DEVELOPMENT

Public-Private Partnership implies joint effort between the public (Government) and private sector in resolving development issues like healthcare delivery, industrialization, infrastructure development, education, financial investment, poverty eradication, job creation and environmental conservation and protection among others.. In developing countries, in particular, sub-Saharan Africa, the private sector has two components: the informal sector and the organized private sector. In most countries in this region, the informal sector is very significant but the contribution to GNP is usually not taken into account in most national accounts (World Bank, 1995). Also in this region, manufacturing sector development is inextricably linked with private sector development as the latter is with the overall growth of most capitalist economies and development of technological infrastructure. From global experience, private sector investment has been identified as a central factor in sustaining economic growth and development and for propelling technological development (Kim, 1997).

The table 1 shows that manufacturing accounted for only 39 per cent of merchandise exports from sub-Saharan region in 1999, compared with 85 percent in East Asia and the Pacific. As with other economic parameters, there are wide country variations. Only one percent of Nigeria's merchandise exports comprised manufactured goods in that year, compared with 20 percent for Ghana and 55 percent for South Africa. In most countries in the region, private sector investment as a proportion of GNP has been very small with only about 2 percent or less.

The economic structure of many countries in Sub-Saharan Africa is inclined to inhibit the growth of the private sector, partly due to government policy but also because of the role of foreign industrial capital in these countries. Many of the industries in the region are foreign-owned, using the technique of organization and production of their parent companies in the

Table 1: Manufactured goods as percentage of total manufactured exports from various regions of the world.

<i>Region</i>	<i>Manufactured exports (as % of Merchandise exports)</i>
East Asia and Pacific	85
Latin America and Caribbean	51
OECD	82
Sub-Saharan	39
World	79

Source: Human Development Report, 2001, UNDP

industrialized world. They manufacture mainly import-substitution products using whole sale imported advanced machinery, equipment and techniques. The result has been that, import-substitution possibilities become exhausted without having led to a dynamic and sustainable industrial growth. In addition to this, quite often industrial progress has tended to slow down or grind to a halt. Furthermore the goal of the foreign investor does not necessarily coincide with the aspirations of a developing economy. The typical objective is to maximize returns on investment, while any contribution to industrial growth and employment is often incidental (Oyeleran- Oyeyinka, 1998).

The level of private sector participation varies from country to country, and from very low to very high in various facets of social and industrial development. The United States of America probably has one of the highest levels of private sector participation in the world in basic amenities including information/communication technology (ICT) (Drieblatt, 2000; Odeyemi, 2000; Obadina, 2004). At the other extreme is China where until recently the public sector dominated virtually every aspect of social, industrial and technological development. However, as a result of reforms initiated about two decades ago, there is now a growing private sector entrepreneurship in china which has now become a key driver of the economy. Some analysts estimate that private firms now contribute 50 to 70 percent of China's Gross National Product (Kim, 1997; Afonja, 2003; Obadina, 2004). Infact in October 2003, the Ruling Central Committee (in China) made a formal declaration and released a series of policy directives to vigorously promote private sector investment in industry, infrastructure, and investment in state enterprises and public utilities (Reuters, 2003). The Chinese private sector is also becoming increasingly involved in social

development. In 2000, the country hosted an international symposium on the partnership between the public and private sector for social development to discuss a unique programme involving the private sector in poverty eradication. Partnerships have been formed between the public and about 4000 private sectors to help eradicate poverty in 592 countries designated by the central government as poverty stricken. Already, an estimated 1.3 million Chinese have been lifted out of poverty (World Bank, 2001).

Africa has been slow in recognizing the economic potential of private sector participation in development and this in no small measure has been responsible for the low level of development (World Bank, 1995). However, in the past decade or so, there has been a major shift in official attitudes in the region toward the private sector. Most governments now recognize that the state's limited resources have to be oriented to playing a supportive role vis-à-vis the private sector. In some countries, this change has gone beyond toleration of the private sector to enthusiastic support for it, but in others, toleration is the norm (Obadina, 2004).

In most countries in Sub-Saharan Africa the private sector is dominated by the informal (small-enterprise) private sector (IPS) although their activities and contribution to GNP are less well documented compared with the formal Organized Private Sector (OPS). Most of the private sector in the region are engaged in agriculture and trading. But clearly manufacturing is the key to industrial growth, export expansion and diversification, and employment generation. The degree of success in imbibing this fundamental industrial development philosophy varies significantly between states in the region. In Ghana, Mali and Tanzania many private enterprises have sprung up in the last decade or so and now produce goods and services that were previously state-supplied (World Bank, 2000; 2001). This positive change has been attributed to the positive effects of Structural Adjustment Programmes (SAP) adopted by these countries. However, in Nigeria which has also had a dose of SAP, the impact on manufacturing has been largely negative and many industries have closed down due to the harsh economic environment.

Finance is the most important problem faced by the private sector, particularly small-scale-

enterprises in Sub-Saharan Africa. The region attracts less than 3 percent of the total foreign finance flowing to developing countries. The results of a series of private sector assessments carried out in the region by the World Bank have identified some core causal factors (World Bank, 1995):

- Macroeconomic stability-unstable micro-economic conditions and lack of reform.
- High cost of doing business in Africa-bureaucratic regulations, low-quality infrastructure, and corruption significantly escalate the cost of doing business in the region.
- Risk of policy reversal and attitudes towards the private sector – political instability and unpredictability of policy directions raised doubts on government commitment to private sector-led growth and stifle foreign investment.
- Inefficient scale – There is a prevalent view that African manufacturing has not reached a critical mass and a scale at which it can take off, exploiting economies of scale and location.
- Slow pace divestiture of public enterprises.
- Indiscriminate trade liberalization.

Apart from microeconomic instability which tends to severely reduce foreign investment, inefficient public enterprises draw heavily on the scarce financial resources of local banks to the detriment of private enterprises. Public enterprises in Africa are estimated to consume about 20 percent of available human and capital resources but contribute only about 10 percent to value added (World Bank, 2001). Although public enterprises can contribute positively to value added with hard budget constraints and managerial autonomy (for example in Korea), most African countries do not seem to be able to apply this remedy to turn around public enterprises and, inevitably, rapid and total divestiture is required to create a conducive environment for the much needed foreign capital investment required for rapid industrialization, and also free available local capital for the benefit of local enterprises (Kim, 1997).

Although many African countries have now accepted that divestiture is the only stimulant that can turn around their economic fortunes, the approach has been different from country to country. Benin, Senegal and Togo have divested most of their public enterprises, mostly by

liquidation. Many other countries are doing it by privatization through outright or partial sale of government interest in enterprises. Although Nigeria adopted this latter strategy progress been very slow.

In 1988, the federal government of Nigeria promulgated the privatization and commercialization Decree (Decree No. 25) to formally initiate the privatization and commercialization program, with the following stated objectives:

- Restructure and revitalize the public sector in order to lessen the dominance of unproductive investments in the sector.
- Re-orientate the enterprises for privatisation and commercialization towards a new horizon for performance improvement, viability and overall efficiency.
- Ensure positive returns on public sector investments in commercial enterprises.
- Check the present absolute dependence on the Treasury for funding by otherwise commercial oriented parastatals and so encourage their approach to the capital market.
- Initiate the process of gradual cession to the private sector of such public enterprises which, by their nature and type of operations, are best performed by the private sector.

A technical committee on privatization and commercialization (TCPC) was set up to manage the privatization process. The committee listed 35 public enterprises for commercialization, 24 for partial and 11 for full commercialization. Among enterprises listed for full privatization were the Nigerian National Petroleum Corporation (NNPC), Nigerian telecommunications (NITEL), Nigerian Ports Authority, Nigerian Insurance Corporation (NICON), and Tafawa Balewa Square. Those listed for partial privatization included Nigeria Railway Corporation, Nigerian Electric Power Authority, Federal Housing Authority, Nigerian Airports Authority, Delta Steel Company. The methods adopted by TCPC for the privatization exercise principally were by public offer of shares through the Nigerian Stock Exchange, principally to institutional investors, core groups with demonstrated management and/or technical skills and workers of the specific enterprise, organized as a cooperative or limited liability. Where the enterprises cannot be privatized, the assets are to be sold (Kayode, 1993; Nigerian Economic Review,

1993; Okafor, 1998; Afonja, 2003). The number of listed enterprises was ultimately increased to 110, including the six motor vehicle assembly plants and twelve commercial and merchant banks. Apart from the commercialization of banks, not much has been achieved since 1991. However, there appears to be renewed interest in the privatization process in the last few years and many enterprises are currently being processed and re-structured for privatization (Nigerian Airways, the steel plants, the refineries)

The past decade has witnessed a wave of liberalization and privatization of infrastructure activities in developing countries. By the end of the 1990s the private sector had become an important investor and long-term operator in infrastructure activities within developing countries, energy sector (electricity and natural gas transmission and distribution), being the focus of the liberalization and privatization activity. In 1990-99 seventy six developing countries introduced private sector participation in energy. These countries awarded the private sector more than 700 energy projects, representing investments almost US\$187 billion (World Bank, 2001). Unfortunately, sub-Saharan Africa has been late in taking advantage of this major development as we have in developing countries in Latin America and East Asia. However, several countries in the sub-region, Nigeria inclusive, now have several energy projects on the drawing board, with private sector participation and the next decade should witness a significant increase in the level of private sector activity in this sub-sector as well as in several other sub-sectors. Already, a mobile phone company in the telecommunications sector has recently benefited from an investment of \$100 million by International Finance Corporation (IFC), a subsidiary of the World Bank. The World Bank has also set up a division for private sector development which through IFC is assisting many entrepreneurs in Nigeria to organize, diversify and expand their businesses (Afonja, 2003).

Opinions are divided on the benefits of Public-Private involvement in developing infrastructural facilities in Nigeria. El-Rufai (2002:16); the former Director General of Bureau of Public Enterprises, currently a cabinet minister and a proponent of privatization and Public-Private Partnership stated:

“There are about 590 public enterprises at

the end of 2000 and 160 are involved in economic activities, generating goods and services. Over 5,000 board appointments are to man these gigantic white elephants with enormous patronage bestowed on high official. About \$100 billion spent by FNG to establish these public enterprises between 1973 and 1999 with a return rate of meager 0.5%, employing 420, 000 workers. The quality of services from...NEPA...for instance, are deplorable and left much to be desired. These enterprises, considered by many as jewel of Nigeria, operate at sub-optimal levels of capacity and are among the most inefficient in the world. These enterprises have become the hotbed for political patronage, corruption, parasitism and rent seeking for elite... Privatization is the only solution to remove all the maladies that are prevalent and promote efficiency, transparency and corporate governance. We should let the government do what it is supposed to do, focusing on health, education, infrastructure, environmental protection and good governance”.

On the other hand, Momoh (2002:34) while opposing privatization and public-private partnership in Nigeria described the former as an intension to replace state monopoly with private monopoly and described the latter as “nebulous and a big fraud” He stated:

“The way many of the enterprises are sold off leaves much to be desired. There is the issue of lack of proper valuing, incompetent valuers, fraudulent valuers etc. There is also the issue of assets which in some instances are not taken into account...the Nigerian private sector is one of the most inhumane, insensitive, callous and exploitative to be found anywhere in the world. Many of the private sector employers neither provide insurance nor social security for their employees. They do not obey labour laws and they sack workers arbitrarily, for good or bad reasons. Many of them do not have pension schemes etc. The private sector employers do not, in some cases, permit their employees to unionize”.

From the above postulations it is evident that while some are in support of public – private involvement in the development of technological infrastructure of some of some obvious benefits, however some scholars are against such since this may promote private monopoly and may not make any desired impact especially in a developing economy like Nigeria where most

people still live below poverty line (Obadina, 2004). Meanwhile the preceding sector attempt to examine critically some recent developments in public- private involvement in the provision of technological infrastructure with special reference to telecommunication sub-sector.

CASE OF TELECOMMUNICATIONS SUB-SECTOR IN NIGERIA

Until recently, the Nigerian telecommunication infrastructure was one of the poorest in the world. The installed telephone capacity was one telephone to about 200 people, with Nigerian Telecommunications (NITEL) as the sole provider. This is far below the International Telecommunications Union's (ITU) recommended minimum of one line per 100 user (Ndukwe, 2004). Most of the available 500,000 or so lines served only about 90,000 subscribers many of which were public institutions and private enterprises. Up to 40 percent of the installed lines were not functional most of the time (Ndukwe, 2004). The very poor state of vital communications structure made doing business very difficult and expensive. The turning point was the establishment of the Nigerian Communication Commission (NCC) in 1993 to regulate and plan for the revitalization of the sector. One of the first steps taken by NCC was to licence some fixed wireless operators to ease the pressure on NITEL and improve the very poor teledensity situation. Unfortunately they limited their operations to potentially lucrative areas of Lagos and Port Harcourt, charging exorbitant tariffs. The first fixed wireless operator to come on stream in 1998 charged exorbitant fees for a line. Today, the same operator is fielding advertisement offering a line for less than 10 percent of the take off price. The licensing of two GSM operators in 2002 was the much needed revolution in the communication sector. In just two years, the teledensity has grown to one telephone per 40 people, surpassing the ITU minimum. The entry of a third GSM operator and second national carrier to the market has further propelled the development of the sector and the projection is that, by the year 2008, about 6 million lines could be in operation. Already the Nigerian communication sector has been declared by ITU as the fastest growing in the world (Afonja, 2003; Ndukwe, 2004; Aihe, 2005b).

In comparison with Nigeria, South Africa has

the most developed telecommunications system in sub-Saharan Africa, with a teledensity of one telephone to 2.5 people. With a population of only 43 million, the country has over 5 million main telephone lines and 11.5 million mobile telephones in use. It is projected that, by the end of 2007, the GSM density would have doubled and one in every two South African would have a mobile phone (Afonja, 2003).

The revolution in the communication sector of the Nigeria economy is a very good example of the impact that private investment could make to infrastructural development. Not only has the sector grown exponentially, the forces of competition and consumer resistance have forced down tariffs and pressure on the providers for good service, to the ultimate benefit of the consumer. However, the erratic electric power system is impacting negatively on the development and operating costs of the sector. The spasmodic nature of power supply makes it unsuitable as a primary source for powering base stations, hence imported base stations have to be reconfigured for Nigeria, with two generators and putting up the cost by up to 50 percent, not counting the additional cost of operating the generators (Ikechukwu, 2005; Umuanah, 2005).

Other developments which are likely to further propel the development of the telecommunication sector are government's decision to promote the extension of telephone facilities to the rural areas where most Nigerians live, the licensing of a second carrier to compete with NITEL and the proposed privatization of NITEL. The latter has proved very difficult to achieve. Efforts by the government to reposition the organization to make it attractive to potential buyers when it is put on sale failed to achieve desired result. Earlier attempts to privatise NITEL in 2001 had proved unsuccessful as no investor found it worth the risk. The preferred bidder, Investment International Limited of London, failed to back up its bid with cash and none of the other bidder had the courage to accept the challenge. It was on the basis of this that the Dutch Company (*Pentascopie International of Netherlands*) was contracted to reposition NITEL for privatization. Consequent the company assumed responsibility for NITEL on April 24, 2003, after the management contracted was sealed between it and Bureau of Public Enterprise to run the ailing for three years and reposition it for privatization. However, Audit Report released

ahead of privatization of NITEL by March 2005 showed a big rot and the consequent dwindling of fortune of the firm which enjoyed absolute monopoly prior to the deregulation of the telecommunication industry some six years ago (Aihe, 2005b; Ikechukwu, 2005).

Highlight of the Report included an inexplicable collapse of turnover by about a quarter, while overhead costs shot up to \$150 million as staff emolument quadrupled. The report raised questions about NITEL's net loss, which was originally put at #15 billion (about \$114.5m) but turned out to be #19 billion (about \$145m), gross earnings falling by more than half. Other shocking revelations included the disappearance of another #100m in the name 'short term investment' payment of the bonus agreed with Pentascope in spite of its failure to deliver, and the continuous payment of unmerited sum of money as Consultancy fees to the Dutch firm. According to the audit report, save for the timely intervention loan of #14 billion (\$106.8m) out of a total package of \$290m to cover operational cost and debt surviving, NITEL was headed for bankruptcy (Williams, 2004a; Umuah, 2005).

Besides mismanagement, NITEL was also indebted to a number of other operators. For instance in October 2004, *V-mobile* Nigeria one of the four registered GSM operators in the country filed a suit against the company over an unpaid debt of more than #3bn (\$23m). Indeed the total estimated owed by NITEL to *V-mobile* and other two operators, *MTN* and *Globacom* was said to be in the region of #11 billion (\$183.7m). NITEL is also indebted to *M-Tel* its mobile phone arm to the tune of #70 million (Williams, 2004a; 2004b).

The fact is that at the time the *Pentascop* was sacked, the firm had failed to achieve the promised 250,000 additional, phone lines despite the huge loan of over #6 billion (\$45.8m) it procured for the expansion project. On the mobile phone side of the bargain *Pentascop* in December 2003, promised to roll out 1.2 million lines for *M-Tel* after launching its GSM service in Abuja. That was to be the beginning of series of launching in three major cities and subsequent extension to the 36 states of the federation. Despite setting aside #150 billion (\$1.15bn) for the purchase of equipment for expansion, *M-Tel* was able to roll out only 600,000 lines some of which have not been operational. Consequently

many of the base stations in various parts of the country were not connected several months after they were installed. The reason for this was that *M-Tel* could not harmonise the equipments supplied it by the three major vendors, *Ericsson*, *ZTE* and *Motorola* thereby making it services to be grossly inefficient (Williams, 2004a; Ikechukwu, 2005; Umuah, 2005).

In contrast *Globacom*, for example the second national carrier operator registered only in 2002 has been asserting its relevance by giving value for its licence. A local promoted operator, *Globacom* launched its services in August 2003 on the 2.5G Technology, making it the only network with such a platform in Nigeria. The *General Packet Radio Service* (GPRS) - enabled technology allows the network to offer such mobile data and value added services as Multimedia Messaging Services (MMS) (Edike, 2006). Besides, the network pioneered per second billing system in the country. In just two years of operation the company reached the 2.3 million subscribers mark and cover more than 196 towns and 36 expressways. It is also on record that *Globacom*, *V-mobile* and *MTN* have continued to increase their market shares through irresistible market strategies by offering its *Sim Pack* for a token. In reaction, *M-Tel* offered its *Sim Pack* for a token in addition to maintaining the lowest tariffs for both local and international calls (Williams, 2004b). At present all the privately owned networks have hit at least one million subscriber mark except *M-Tel* which is own by government as shown on the table 2.

Another important aspect of deregulating telecommunication industry in Nigeria is the price war that has ensued among the competitors. It is also on record that *Globacom* though a relatively new entrant with the smallest of network has impacted positively on the industry with its radical and aggressive tariff regime of pay-by-the-second as against pay-by-the-minute billing system. But for *Globacom*, the older operators never contemplated a downward movement of

Table 2: Subscriber base by network.

Network	Subscriber base
MTN	8.7 Millions
V-Mobile	5 Millions
Globacom	3.4 Millions
M-Tel	700,000

Source: Edike (2006).

airtime tariff within so short a time. The defence of the existing high tariff was that they paid a huge licensing cost. Globacom changed all that albeit marginally. It was perhaps Globacom's best strategy to upstage well-established networks to get a share of the market. More than two years after Globacom its subscribers have continued to increase as indicated in the table above. In fact, it has reduced the number of anxious subscribers awaiting connection minimally (Aihe, 2005b; Edike, 2006).

Although the participation of private operators in telecommunication industry in Nigeria may have led to greater access to telephone and improvement in the efficiency, to maintain such standard however requires massive and continuous investment in the sector. This perhaps requires mustering enough funds, and to achieve this appears to be the greatest problem the operator may encounter. The Econet's experience in this regard is a case in point. It was unable to raise the capital needed to expand its network beyond 800,000 subscribers, thus setting the condition for Vodacom to take over its operations. The Zimbabwe based Econet Wireless belongs to different league as its financial base is not as deep as the foremost networks that are mostly financed by multinationals across the continents. Barely two years after starting full operations in Nigeria, the company's attempt to raise funds to shore up its operation in the country created problems within the organization that eventually led to the ouster of its former Chairman Strive Masiyiwa. The financial straits gave room for South African's Vodacom to take over the operations of Econet by acquiring 51 percent of its equity. However, in April 2004 Vodacom (Pty) South Africa Limited signed a five –year management deal under the brand name V-Network Nigeria Ltd. This transaction was only concluded after due diligence by Vodacom over a nine months period, a process that was characterised by litigation between Econet Wireless Nigeria and its former technical partner, Econet Wireless International. Under the term of new agreement, Vodacom group would provide additional support in procurement, network design/ roll out of products and marketing among other services. In essence, Econet's inability to raise required fund appears to be one good example of how tough and difficult it is for operators in Nigeria and perhaps

in many other African countries to access capital despite the huge growth and potential in the sector (Williams, 2004a, 2004b; Ikhemuemhe, 2005).

Besides the problem of funding, another obstacle may be indigenous production of telecom equipments, cables and in some few instances telephones. Apart from South Africa that has its own production of integrated circuits, the continent depends largely on imports for its equipment needs. This may lead to the exportation of wrong and outdated technologies to Nigeria and other developing countries thus creating the problem of maintenance. For instance, NITEL the multiplicity of the equipment it imported to improve its rustic services made it impossible to maintain existing infrastructure and manage its spare parts.

CONCLUSION

From all indications, the economic impact that public- private partnership has made in the telecommunications sub-sector, within its relatively short existence has been tremendous and this has encouraged a healthy range of telecom activities across the country. It provides the back bone for other industries and almost every aspect of the national economy. Part of the success story of mobile phone in Nigeria is that the system supports pre-paid services. The pay-as-you-go system has made it possible for people to have access to phones that were previously the exclusive preserve of the wealthy. The system has not only created wealth but also encouraged new entrepreneurs to spread telecom services across Nigeria through the provision of telephone shops, telecenters, private payphones, fax and internet shops. The internet has greatly improved access to instant information on just about anything-education, health, sports, instant global news. The quality of students' knowledge may have improved remarkably because they now have access to the latest information on virtually any subject.

In addition with globalization, technological innovation is progressively becoming a reality in a given number of countries including Nigeria. The emergence of the global information infrastructure presents extra opportunities and challenges for the country. Information and Communication Technology (ICT) has greatly contributed to the development of a new type of

entrepreneurship based on creativity, the ability to network, openness to virtual environments and intangible assets, high level of agility, immediate responsiveness and the continuous accumulation of new knowledge. This makes it imperative for higher and broader skills and competence, through continuous learning, the updating and enlargement of skills. In the long run, there will be improvement for competitiveness, productivity and job creation.

Moreover in Nigeria, the advent of the Global System of Mobile Communication (GSM) sub-sector has added fillip to government's waning battle against unemployment. Since 2001, when the four Global System for Mobile communication (GSM) companies became operational, more than 10,000 people have been directly employed by companies (Ndukwe, 2004). However, the number employed indirectly by the GSM sub sector is innumerable to say the least. Scores of new businesses have come about courtesy of the sub-sector. The list is endless from various levels of dealership to cell phone vendors, the vendors of cell phone accessories, the cell phone repair shops, the static and the itinerant call shops, and the street recharge card hawkers. The last beneficiary of the floodgate of employment offered by the GSM revolution in Nigeria, the recharge card hawker is fast becoming an endangered species by virtue of their modus operandi. They suffer the worst of occupational hazards. In their bid to eke out a living, not a few have been knocked down fatally by motorists. Moreover, some have been crippled and even worse, killed outrightly. Majority of these recharge card hawkers are youths, young men and women who are either in their teens, their twenties and thirties (Guardian, April 20, 2004; Ndukwe, 2004).

To sustain the feat already achieved in the sub-sector it is expected that the private sector should be the key player in financing telecommunication development in Nigeria. Consequently government has a vital role to play in this regard. First it is important that government continues to provide enabling environment and level playing ground for all the operators. Not only to four GSM operators but also to other eighty fixed wireless operators to boost confidence in the sector. Secondly, government should continue to empower and invigorate the regulatory agency that the National Communication Commission (NCC) to

enable it discharge its responsibility creditably. Generally it appears that the commission has performed relatively well in curbing the exploitative and inordinate ambitions of the operators who sometimes do not give value to their subscribers. However this require constant monitoring and evaluation of services they provide so the these operators do not create cartel with the intension exploiting the consumers. In fact the Commission's introduction of *Telecoms Consumer Parliament* is a welcome development in addressing problems peculiar to operators and consumers alike. The Commission should also encourage all the operators to invest on technical manpower and in managerial skills to improve on the services they are rendering to their consumer.

Finally, it is expected that if appropriate measures are taken the feats achieved in the telecommunication sector will not only be sustained but has the potential to become the largest absorber of unemployed youths in Nigeria thereby leading to rapid development of the country and the continent as a whole.

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