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"THE ROLE OF TELECOMMUNICATIONS IN NATIONAL DEVELOPMENT"

By

Guest Lecturer

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Mr Chairman,

Dr Michael Omolayole,

Distinguished Ladies and Gentlemen,

All Protocols Observed.

It gives me great pleasure to stand before you as today's Guest Lecturer. I feel privileged to be given the opportunity to address such a distinguished audience of business and political leaders, academics and professionals from diverse fields. I am also privileged to follow in the path of those notable Nigerians, such as Mohammed Hayatudeen, Mr Ron Van der berg, Mr Felix Ohiwerei, Dr Rilwanu Lukman, Mr Pascal Dozie and others who have preceded me as Guest Lecturers for the Annual Omolayole Management Lecture.

I would also like to commend the initiator of this Lecture Series, Dr Michael Omolayole, as well as AIESEC Alumni Nigeria, the organizers of the 19th Annual Omolayole Annual Management Lecture. I fully identify with the philosophy of the Lecture Series which aims to stimulate discourse on managerial practices and economic issues and bring business executives together to exchange ideas and views.

I was quite excited when I was notified of the topic of this year's lecture - *The Role of Telecommunications in National Development.* Given my position as Executive Vice Chairman of the Nigerian Communications Commission and as an engineer who has been involved in telecommunications for more than three decades, this is a topic very dear to

my heart. But I want to point out that each and every one of you, as consumers of telecom services, are stakeholders in this vitally important industry.

THE EXPANSION OF TELECOMMUNICATIONS

From time immemorial, information and communications have always formed the basis of human existence. This fact has driven humans to continuously seek ways to improve the processing of information and the communication of such information to one another, irrespective of distance and on a real time basis.

The explosion in technology which ushered in the information age has become the basis for defining power in the modern world. It is a widely accepted fact that no modern economy can thrive without an integral information technology and telecommunications infrastructure. The value of products and services is increasingly a function of their information content and the knowledge used to produce them rather than the raw material content. Consequently, the ability to easily access and share information and stimulate the creation of new ideas is viewed as essential to maintaining a strong economy and enhancing quality of life of every citizen.

Access to telecommunications is critical to the development of all aspects of a nation's economy including manufacturing, banking, education, agriculture and government. In fact, recent World Bank studies indicate that for every US$1 invested in telecommunications infrastructure, more than US$6 is generated in economic returns by its impact on local employment and general economic growth. Revenue from telecom services alone is

estimated at US$1.2 trillion as at 2002. Telecommunications networks are now making it possible for developing countries to participate in the world economy in ways that simply were not possible in the past.

Telecommunications has been experiencing rapid growth around the world. In 1999, there were 1.4 billion connected lines worldwide (490 million Mobile; 905 million Fixed). Today, there are nearly 2.5 billion lines (1.33 billion Mobile and 1.21 billion Fixed). Thus in the last 4 years, we have added 1.1 billion lines to the 1.4 billion lines connected in all the years before. In fact, to quote an ITU publication, "today, most of the planet's 6.1 billion inhabitants are within reach of telephone service. For the first time in history, there are now more telephone subscribers worldwide than there are households." All these go to demonstrate the importance the world attaches to the development of telecommunications infrastructure.

Increased adoption of ICTs in advanced societies implies that businesses in developing countries will adopt ICTs or become less competitive. New and emerging developing economies are therefore creating the enabling environment to encourage development of ICT infrastructure. Indeed, the developing world is becoming the El Dorado of new business opportunities. In the last four years, three out of four new phone users connected each year live in the developing world and there are ten times more potential internet users in the developing world than in the developed world. Growth in mobile is also mostly generated in developing countries. Between 1993 and 2002, mobile users in developing countries increased from 3 million to over 500 million. For some of these nations, the statistics are staggering. For example, China has added an average of 5 million new mobile phone subscribers

every month since 2003. India added 1 million in July 2003 alone and Russia added 1.6 million new mobile subscribers just in the month of August 2003.

IMPACT OF INTERNET

Communication tools such as telephones and the Internet are increasingly critical to economic success and personal advancement. The advent of the Internet has been variously described as being as important for society as the development of the personal computer, the telephone or even the printing press. The Internet serves many functions – as virtual community, electronic marketplace, information source and entertainment center, among others. Through the Internet, we can create new businesses or facilitate the delivery of basic services such as health and education.

Almost all countries are on-line and there are an estimated 580 million internet users worldwide as at the beginning of 2003. Internet users grow by an average of 78 million new users annually. The growth of the Internet is creating opportunities for new high speed data networks, new multimedia applications, Voice over Internet Protocol (Internet Phone) and convergence of technologies.

VIDEO-CONFERENCING AND MULTI-MEDIA FACILITIES

The development of teleconferencing facilities and multi-media capabilities of telecommunications systems has made it possible to combine audio and video facilities, which has been of immense benefit especially in healthcare delivery. It has become common practice for surgeons in one part of the country, or another part of the world, to consult with other specialists while

performing operations, and such operations can also be monitored by other surgeons in any part of the world.

Concerning education, telecommunications technology has spurred the growth of distance learning which has given millions of people who lack the time or resources to attend traditional colleges, the chance to pursue education qualifications at their own pace. It has also allowed educational institutions to run courses concurrently, or deliver lectures simultaneously to different groups of students located far away from the actual point of delivery.

TELECOMMUNICATIONS AND SOCIO-ECONOMIC ACTIVITIES

Telecommunications brings together buyers and sellers and facilitates the flow of information, making it a key driver of trade. Available data from the International Telecommunications Union has shown that flows of international telephone traffic closely mirror the patterns of international trade. Indeed, variations in telephone traffic can be used as a leading indicator of national economic performance.

In agriculture, easier and faster access to up-to-date market and price information assists farmers and rural-based traders in their businesses. Telecommunications can also deliver better access to information on improved seeds, availability of fertilizers, weather forecasting, pest control and other agricultural-related services.

Furthermore, telecommunications plays an important role in politics and governance, by enhancing a government's ability to provide security for its

citizens, protect its borders and more efficiently handle civil emergencies and national disasters. In turn, the citizens gain easier access to government and greater awareness of government programmes and activities. An informed populace helps protect the democratic process. As expounded by Mr. Jean Jipguep, former Deputy Secretary-General of the ITU "telecommunication is one of the cornerstones of a market democracy. It is no coincidence that dictatorships and totalitarian systems have only ever existed in societies where the penetration of telephone lines is low and where access to information is restricted to a ruling elite." His observations are certainly backed up by the experience of Nigeria where the rapid growth of Nigeria's telecommunications' sector has come about with the advent of a democratic government in 1999.

NIGERIA'S TELECOM REVOLUTION

Telecommunications technology presents copious opportunities for the creation of unprecedented wealth for Nigeria. Thankfully, the Obasanjo Administration has demonstrated the political will necessary to foster a conducive environment for investment in this sector. Nigeria has progressed from the telecommunications Dark Ages before the year 2000, to a telecommunications revolution that is opening up new possibilities and frontiers across our business, political, social and economic landscape.

In 1999, Nigeria had only 400,000 connected telephone lines and just 25,000 analogue mobile lines. Total teledensity stood at a paltry 0.4 lines per 100 inhabitants. Connection costs were prohibitively high – as much as N60,000 for an analogue mobile line and waiting times for fixed lines could run into years.

Today, owing to several factors including government deregulation policy, the worldwide trend of rapid development in telecommunications and information technology and the huge potential of the Nigerian market, the story is very different. The Obasanjo Administration, through the government regulator, the Nigerian Communications Commission, has proved itself fully committed to the liberalization of the telecom market. Since year 2000, NCC has licensed Digital mobile Service providers, several Private Telephone Operators, Fixed wireless Access Operators, two Long Distance Operators, Internet Service Providers and a Second National Carrier.

This activity has increased and promoted competition in the industry, resulting in exponential growth in the number of telephone lines. It is instructive to note that while connected lines only grew at an average of 10,000 lines per annum in the four decades between independence in 1960 and end of 2000, in the last two years, an average growth rate of 1 million lines per annum was attained. As of September 2003, Nigeria had attained over 3 million lines, (2.3 million of which were digital mobile lines). Total teledensity, which had been just 0.4 lines per 100 inhabitants in 1999 stood at 2.6 per 100 inhabitants by September, 2003.

Along with this growth in lines has come a boom in private investment in the telecommunications sector. Recognizing the seemingly insatiable appetite of consumers for phone services and the potential of the Nigerian market, investors pumped in USD2.55 billion into the sector by June 2003. This represents a phenomenal 5000% increase in investment from just

USD$50 million at the end of 1999. Today, investment in the telecom sector ranks second only to that in the oil industry.

Increased competition in the market has also pushed down connection charges, so that fixed lines cost between N7,000-N30,000 in 2003 from over N100,000 in 1999. Although the GSM operators still have some way in terms of tariff rebalancing, the pressure of competition and regulatory and market forces, has forced the more established operators to reduce their rates and also offer per-second billing.

I'm sure that if I had time to chat personally with every one of you here, I would hear countless different stories of how improved and expanded telecommunications services have touched your lives, families and businesses. The emergence of GSM has led to improvements in efficiency and productivity, reduction in transaction costs, increased service innovation and better quality of life. Close to 2,000 persons have been directly employed by the GSM operators and an estimated 400,000 Nigerians are benefiting from indirect employment generated by the GSM operators. Indirect employment has also been created through contract awards to construction firms, research companies and media consultants. In the financial sector, enterprising banks have designed innovative products that leverage the use of GSM.

The emergence of GSM has also led to the return of significant numbers of Nigerians from abroad. These are telecom professionals who have come back to build this country's communications sector instead of giving the best of their talents to foreign companies. Moreover, the GSM explosion has

birthed a new class of entrepreneurs who might otherwise have been unemployed. There is a nationwide network of dealers, vendors, GSM accessory sellers and the ubiquitous "umbrella-stand" operators, who actually received a special mention in a recent ITU publication for the service they are rendering to the Nigerian public.

Let's not forget also, the non-quantifiable rewards of improved telecommunications. The use of GSM has resulted in fewer road accidents by reducing the frequency of travel and the lives of many accident victims have been saved because of emergency calls from GSM mobile lines. Last, but certainly not least, the ability to contact our family and friends, both far and near, has been a major benefit for all of us. As a personal example, my mother lives in my village in Oraifite, Anambra State and the only way to contact her is by mobile phone. Knowing that she can call me at any time and that I can reach her, brings me a peace of mind that is invaluable.

THE ROLE OF NCC

The progress of the telecom industry in the last three years is largely as a result of the liberalized market, but even in an a liberalized environment, government still has a vital role to play in growing the nation's telecommunications infrastructure and ensuring a competitive environment that will reduce prices and make services more affordable. Government best serves the industry through the establishment of a strong regulatory body. The Nigerian Communications Commission has been empowered and mandated to regulate the industry and act as watchdog. The Commission's role is to encourage competition, remove barriers to market entry, oversee interconnection of new operators with incumbents, monitor tariffs and

quality of service, protect consumer rights and ensure the provision of telephone services for all. Our vision is to position Nigeria among the information-rich economies of the world within the next five years. We are also committed to providing the right environment that will attract massive investment into the telecom sector.

We have identified certain key technology areas such as wireless systems and Internet for particular urgent attention. Digital Wireless and Mobile Communications Systems can help Nigeria leapfrog into the circle of the world's information-rich economies. Nigeria's immediate requirement for local access to the telephone network is enormous and the required capital and time investment needed to complete a full deployment using wire lines are daunting. Wireless systems offer quicker solution to providing network access than traditional copper lines and are therefore more desirable.

Internet services are becoming available even on mobile phones, making it possible to transact a wide range of services formerly only available using a computer device. Fixed and mobile wireless systems offer key advantages in making Internet services universally available because of the speed of deployment. Fast deployment means quicker connections to subscribers resulting in faster payback of capital investment. The rapid rate of deployment will also make for faster access to telecommunications facilities and thereby accelerate the pace of national economic development and growth. In very low density and widely dispersed areas, satellite communications systems can fill in the gaps. Satellite systems today can deliver a huge range of services directly to subscribers in remote areas

including broadband services necessary for Internet connectivity for distance learning.

CHALLENGES AHEAD

Although the benefits of expanded telecommunications infrastructure and Nigeria's achievements in this regard are clear, many challenges remain. For starters, telecommunications is a highly capital-intensive business, requiring massive importation of equipment from abroad and therefore massive funding. Telecom operators had suffered from the timidity of major financial institutions in Nigeria and the lack of access to long-term capital. However, there are signs that the situation is improving, as evidenced by MTN's recent signing of a $350 million facility from 16 local banks. The industry is also held back by the lack of reliable transmission infrastructure in the country which has forced the major mobile operators to divert network access resources to build their own infrastructure and has led them to review their financial and business plans. Furthermore, the lack of sufficient interconnection resources and facilities within both NITEL and M-Tel networks continues to hinder seamless interconnection, although the measures being pursued by the new Management of NITEL and M-Tel should result in full interconnection by the end of the year.

Operators also have to contend with inadequate and erratic power supply, poor security and vandalization. Another serious problem is the shortage of trained and qualified manpower. The expansion of our telecommunications facilities must go side by side with the development of the human resource capacity that will support the industry. We must develop our knowledge skills and competencies to understand the complex linkages of wireless

networks, fiber optics, satellite systems, computer to computer networks, Internet webs and a host of other telecommunications technologies. Manpower requirements for telecommunications development does not stop with the engineers and technicians. Nigeria also needs well-trained personnel in other specialist areas such as financial planning, law, accountancy consultancy services, business management, computer science, personnel management and so on.

These challenges are being tackled head-on because Nigeria cannot afford to lose out or fall further behind in the digital world. Nigeria's past economic problems can be partly traced to lack of adequate telecommunications facilities required to support industrialisation and economic growth. Just as access to information and communication services is key to national development, when this access is lacking, national development is retarded.

A troubling divide has grown, separating the world's information "haves" and "have nots". It is arguable that this digital divide – the divide between those with access to new info-communications technologies and those without – poses as many problems and has as far-reaching consequences as the economic gap between First and Third Worlds.

CONCLUSION

The telecommunications and information technology explosion of the late 1990s is reaching saturation point in the developed world, so attention has shifted to Africa, as one of the last emerging markets. Nigeria must plan for and continue to create the policies and enabling environment to enjoy the full benefits of this new digital opportunity.

With a population of 133 million people and the country's enormous economic potential, Nigeria remains Africa's most important market. We cannot tap the full potential of this market without a sound telecommunications and information technology base. In the new world order, driven by knowledge and exchange of information and ideas, survival depends on access to national and global information networks. Telecommunications is the infrastructure of the global information society. The expansion of our telecommunications network has and will continue to accelerate development across the nation. In the rural and under-served areas, access to telecommunications will contribute a great deal towards improving education, developing businesses and creating jobs.

Going forward, our challenge is to rapidly grow our telecommunications and information technology networks as a way to emancipate our people and enhance Nigeria's capacity to compete effectively with other economies. Without a solid telecommunications infrastructure the country will not attract the necessary local and foreign investment to build our economy. Telecommunications offers Nigeria the platform to catapult onto a higher developmental plane. The telecommunications revolution witnessed thus far has brought us unprecedented growth in the network, empowerment of the Nigerian populace, respect from the international community, job creation and economic stimulus. A lot of work to do to ensure that no Nigerian is left out, and all hands must be on deck to improve the nation's socio-economic operating environment. Telecommunications is the key to unlock the potential of this great nation, and indeed the Continent. The future is very

promising and I, for one, feel blessed to be witness to this time in our history.

Thank you for listening, and may God bless you all.

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