

# THE RELEVANCE, TREND AND CHALLENGES OF INFORMATION COMMUNICATION TECHNOLOGY IN PRODUCTION MANAGEMENT AND ENTREPRENEURSHIP

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## **Abstract**

This paper looks into (he role and relevance of information communication technology (ICT) in creating job opportunities for the unemployed youths. Besides, if creates an awareness of the existence of global electronic business environment. The paper also examines the concept of Technology in general and information communication technology in particular in relation to education and e-business. It highlights the role of ICT in production management and entrepreneurship in career development. Trends and challenges facing the use of ICT are discussed. In conclusion, the paper suggests that stakeholders and other relevant non-governmental organizations (NGOs) in collaboration with government should supply computers to schools for teaching and learning-experiences. It is also recommended that teachers should be given in-service training in computer technology and its application.

## **Introduction**

The level of development in a country is a reflection of the nature of educational programmes in existence. The quest for technological transformation to enhance productivity and entrepreneurial education in this era of globalization, youth unemployment, poverty stricken society cannot be over emphasized. The use and development of technology or the development of curriculum in the educational system must reflect the people's aspiration and the immediate needs of the society in order to make an impact on the lives of the citizens.

Over the years, education has been identified as a major key player in national development. This is anchored on the nation's determination to build a self-reliant nation. The implication of this goal is that for a nation to be self reliant, priority attention must be given to technological, technical-and vocational education. Although, this *is* evident in the policy statement on vocational and technical education policy document, there is no policy linkage between these aspects of education and information communication technology (ICT), which is the bedrock of modern development in the era. of globalization (Okunola and Adeyanju, 2007). This technological developments has crucial effects on the labour force of a country. Recently, things are changing and there are multi-faceted ways of doing things. These innovations and modern practices have educational implications on a country like Nigeria.

The educational system in Nigeria is dysfunctional; most graduates of our university are job seekers. They cannot create jobs because of the type of education they received. This has led to mass unemployment of the youths today, hence there is a call for restructuring of the curriculum to reflect the needs of the society. The awareness of the crucial role which technological innovation plays in the socio-economic and political advancement of any nation calls on education stakeholders to begin an aggressive awareness campaign towards promoting ICT education in Nigeria as well as providing the body think tanks to supply the necessary intellectual initiatives and other supports for government (Fashola, 2008). Besides, Fashola is of the opinion that if Nigeria is to have a sustainable economic growth through this mobilization for science and technology education, the government will have to take the responsibility of providing the enabling environment for full realization of teaching and learning of science, engineering, technology and other related information communication technology courses.

This is necessary because it is what can propel and drive the nation's economy to join the league of twenty countries with the biggest economies by the year 2020. Moreover, there is a significant relationship between economic development and the level of technology existing in any country. A well thought out programme such as ICT that is technologically-driven and technically-oriented will transform our economy, improve our productivity and provide job for our graduates that are job seekers.

The focus of this study is to address the youth unemployment by engaging them in computer related activities for sustainable living and to create awareness of the existence of global electronic business environment. Moreover, the study will create an awareness of the role information communication technology (ICT) can play in production and management of our enterprise. The

worrisome management issue is the inadequacy of the Nigeria educational system to address the youth unemployment in spite of her wealth and potentials. At this stage one may ask, will Nigeria be able to join the league of twenty countries with the biggest economies in the year 2020, when there is no adequate ICT compliance in the various sectors of our economy?

On this note, it is necessary to clarify the concepts of ICT, the relevance, issue and challenges in order to provide the necessary framework for understanding the relevance of ICT in production management and entrepreneurship.

### **Concept of Technology**

The definitions of the term "technology" differ and the choice of any particular definition is largely dependent on what issues are under consideration. Technology focuses on techniques used by individuals while engaged in organizational processes which are programmed into machines. According to Inemeh quoted in Obayi (2007), technology is the way man uses his inventions and discoveries to satisfy his needs. The educational implication of this is that technology is a set of techniques available for producing particular goods and services. It involves the knowledge and information required for carrying out a particular activity. Similarly, Information and Communication Technology (ICT) is said to be the data that have been processed, analyzed, interpreted which are meaningful to the receiver of the message. They consist of facts which provide solutions to unsolved problems, and rational decision making, just as electrical energy helps to perform mechanical tasks. The significant element in information is messages which are accurate, concise, and have superior value. In the same vein, Isichei (2000), sees technology as the process of using information to have meaningful control over nature, and is to survive the challenges and changes in the environment, which build a civilized way of life for higher standard of living. Ubani, quoted in Njoku (2006), also defines ICT in the context of education as the combination of technologies for directing collecting, storing, processing, communication and delivery of information related to teaching and learning processes. He thus identifies three categories of ICT as follows:

- Processed information (the computer itself)
- Disseminated information (Telecommunication system)
- Represented information (multimedia system)

ICT, in education can therefore be understood as the application of digital equipment to all aspects of teaching and learning.

### **The Relevance of ICT in Production Management and Entrepreneurship**

The greatest achievement in the last two decades is the development of ICT for use in all facets of human endeavour. This has effect on the way people live and think. Education is one of the industries that have benefited and still stand to benefit from world information communication technology. Information technology can be applied across all sectors of a given economy because of its pervasive impact. It can affect every function within an organization. For instance, ICT can improve not only the performance of a product such as an automobile but also the design, engineering, manufacturing and services of the auto. The same is applicable to auto sales where over 50% percent purchasers are influenced by the internet, thereby making direct requisition to the manufacturer.

Similarly, in the building industry, the information communication technology has improved not only the production and processing of building plan, but also the design and structural details of the building.

ICT encourages large production rate and the products are unique and better in terms of quality and durability.

Moreover, the cost of computer processing power has fallen by an average of about 30 percent a year in real terms (Luthan, 2005). In relative terms the cost of microprocessors has drastically dropped to the level that it is affordable by an average Nigerian. Information communication technology can be both an input and a final product. It is capable of revolutionizing the production and distribution of entire industries, services and organizational function (Luthans, 2005).

Besides, the internet has become a marketplace and directly carrying out manager responsibility by way of locating a new supplier at a considerable price that is affordable. The products of ICT include a cellular phone that allows managers to stay in their offices and get in touch with their field personnel, no matter where they are.

E-mail via Personal Computers (PC) and Personal Digital Assistant (PDA) have become a commonplace in today's workshop. It is used to communicate with everyone inside and outside the organization. E-Business is also revolutionizing business models, processes and relationships along the whole length of the supply chain. Similarly, a programme called internet-ship helps business customers

carry out their shipping needs without ever picking up a phone. There is much profit to those who make some of their processes electronic. For instance, the marginal cost to a bank of a transaction over the internet is about a cent, compared with 27 cents by cash machine, 52 cents by telephone and \$1.14 by a bank teller (The economist, 2000). With the help of internet some electronic information can be viewed by any employee, For example, internal phone books, procedure manual, training materials, requisition forms can be converted to electronic form on the web and constantly updated at a minimal cost.

### **Current Trend**

It is pertinent to acknowledge that the world of work is becoming complex and as such increased knowledge and skill are required both from students and their instructors in this era of Information, Communication Technology. We must be acquitted with the new global technological breakthrough. The teachers must be prepared to bring the awareness and the knowledge to their students who in turn must see the future and get prepared to face its realities. Accordingly, it becomes imperative that Nigerian should review its curriculum to reflect its economic policy (National Economic Empowerment Development Strategy) which is aimed at providing quality education which is not only functional but also business oriented. Okorie and Ezeji in Obayi (2007), further remark that;

Work provides the means by which an individual satisfies his ever increasing need and wants ..... Every human training is a means of preparing people for the ultimate aim of making them good workers so as to be self-reliance in their own interest and that of the larger society.

Still on global trend ICT is being employed in much more active ways. For instance, instead of just gathering and storing data, to merely keep track of the expenses of sales, people and others that are required to travel on company business, firms are now having their people directly submitting expenses electronically. Besides, businesses are also using internet to communicate with suppliers, partners and customers, thus, reducing both time and cost (Luthans, 2005). Another current trend is the online ordering of inventory. Big automobile companies can now buy a large amount of their parts and materials from online suppliers. This approach is so efficient that it can cut as much as 16 percent of the cost of doing business in the old way. The key to success is to create the needed technology system and train the employees to use ICT knowledge efficiently.

The place of ICT in preparing students for the world of work cannot be undermined. A good educational programme should be such that takes into consideration the trend in the global economy, labour market and occupational situation.

### **The Focus of Production and Entrepreneurship in Career Development**

Employers will continue to demand for qualified new talents in information communication technology and other emerging technology fields. The positions for which applicants are sought today require a combination of technology, business management, communication and other format of education and experiences (Obayi, 2007). The modern cyber-careers for the twenty first century include database development and administration, enterprise systems analysis and integration, network design and administration, programming/software engineering, technical support, technical writing and digital media (Berry 2002). However, technology-mediated communication services include World Wide Web, e-mail and digital measuring services, telephone GSM, voice mail, conferencing systems persona! digital assistants (PDA) facsimile (fax) telex/ teleprinter and teletypewriter and exchange phonogramme services and internet telephone (Oyesode, 2003; Obayi 2003; Everret 2002). With reference to global e-business environment, Timm (2002), remarks that preparing students for work has never been more challenging for business education. He stated that the best preparation for students entering into global e-business occupations may be a series of experiences that allow them to learn by reading, doing, collaborating research and developing. In the twenty first century, business education is poised to integrate business, entrepreneurship and technology so that the students should have a sound educational foundation for seizing opportunities (Clodfelter, 2002).

The emerging, global economy is very dynamic, which should be borne in mind during career preparation of students. The current technological advancement with its impacts on information and knowledge, outpaces society's capacity to implement changes on many fronts including education. Nigeria at this stage of economic development deserves an aggressive effort towards the development of ICT competences as the solution for total development. Only a well-designed skill programmes such as those of the industrialized Nations can bring the desired change to our economy.

## **Challenges To ICT In Production Management and Entrepreneurship**

In spite of the advantages of ICT in the world of work, there are obvious problems militating against its use in our educational establishment. The major challenge is inadequate funding. Education is grossly under funded in Nigeria. This has directly or indirectly affected the education sub sectors and academic programmes. Some of the programmes in our universities are not accredited because of lack of fund. The government investment for ICT for educational purpose is very low and can be assessed by the ratio of students per computer and the level of internet connectivity.

**Skill Acquisition:** There is currently lack of skill possessed by lecturers to design and deliver their courses in electronic format. Many are not still ICT compliant and as such, are not interested about its use in educational programmes.

**High Level of Poverty:** The cost of computers and other ICT resources are still far beyond the reach of a common man in Nigeria.

**Inadequate Power Supply:** Over 90 percent of the e-tools depend on electrical power to function". At the moment, the power supply in Nigeria is unstable and unreliable for meaningful operation of the e-machine.

**Access to Internet:** Access to internet is still far below the expectation and utilization of ICT resources for education purpose.

There is a low level of computer literacy among Nigerians.

## **Conclusion**

Information and communication technology is a powerful tool for enhancing technological breakthrough. The development of entrepreneurship and the small scale industries cannot be achieved without the application of ICT. Consequent upon this, the stakeholders and other relevant Non-Governmental Organizations (NGOs) in collaboration with government should supply computers to schools for teaching and learning experiences. On this note the following recommendations are made:

## **Recommendations**

Teachers should be given in-service training in computer technology and application. The power supply in Nigeria is epileptic. The Power Holding Company of Nigeria (PHCN) should be privatized to avoid monopoly of the Company. Nigeria can borrow a leaf from the recent development and improvement in telecommunication and apply it in other sectors.

Technicians should be trained to handle e-machine maintenance and services. Government and stakeholders in education should supply computers to schools to enable the pupils or students to have access to computer education.

Government and non-governmental organizations (NGOs) should subsidize the cost of e-tools for the common masses to benefit.

Government and non government organizations (NGO) should supply e-machine and accessories to skill acquisition centers to enable the trainees acquire relevant skills that will enable them to live a self-reliant life.

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