

ICT as a Viable Tool for Entrepreneurship Education

Alex O. Iwu and R.C. Nzeako

School of Education
Alvan Ikoku Federal College of Education, Owerri-Nigeria

Doi:10.5901/jesr.2012.v2n9p125

Abstract

This paper dwelt on Information and Communication Technology (ICT) as a veritable tool for entrepreneurship education. Hence it examined the concept of ICT as the use of computer based information system and communication systems to process, store and transmit data. Entrepreneurship as skills acquired to establish a business outfit. The objectives of entrepreneurship include but not limited to identify and solve problems using critical and creative thinking. Examine the link between science, vocational and technical education, small business and entrepreneurship. Also discussed are the role of entrepreneurship in economic development such as economic and support facilities linkages, rural saving mobilization, utilization of local resources and rural materials, generalization of employment opportunities. It also highlighted some of the agencies for promoting entrepreneurship education such as small and medium Enterprises Development Agency of Nigeria, Industrial Development Centres, National Development Programme etc. ICT as a tool for entrepreneurship was highlighted. Problems of entrepreneurship education such as absence of mentorship, short duration of programmes, inadequate funding and capacity are explained. The following suggestion are made, which include the government and private organizations should establish a core entrepreneurship development institutions that will produce mentors and empower a good number of entrepreneurs in different economic sectors.

Keywords: ICT, Hardware, Software, Entrepreneurship, Technology

Introduction

Information and communication technology (ICT) has become within a very short time, one of the basic building blocks of modern society. Many countries now regard understanding ICT and mastering the basic skills and concepts of ICT as part of the core education, alongside reading, writing and numeracy. Information and communication technologies (ICT) are electronic technologies used for storage and retrieval. Development is partly determined by the ability to establish a synergetic interaction between technological innovations and human values. The rapid rate at which ICT have evolved since the mid 20th century, the convergence and pervasiveness of ICTs, gave them a strong role in development and globalization (Nwagwu, 2006). ICTs have a significant impact on all areas of human activities in this 21st century.

Iwu and Ike (2009) defined ICT as the acquisition, processing storage and dissemination of vocals, practical, textual and numerical information by a micro electronic based combination of computing and telecommunication. ICT simply means the use of computer based information system and communication systems to process, store and transmit data. It is to describe exciting and innovative ways to provide learners with global access to information, learning and support. It is an umbrella term that includes any communication devices or application, encompassing, radio, television, cellular phones, computer network, hardware, software, electronic mail, facsimile, satellite systems as well as the various services and application associated with them. The field of education has been affected by ICTs which have undoubtedly affected teaching and learning. ICTs have the

potential to accelerate, enrich, and deepen skills, to motivate and engage students, to help relate school experiences to work practices. It also creates economic viability for future employees as well as strengthening and helping schools change. To ensure this therefore, there is need for entrepreneurship education (Dawodu 2005).

ICT Entrepreneurship Education

In a rapidly changing world, basic education is essential for an individual to be able to access and apply information in opening up a business. The Economic Commission for African has indicated that the ability to access and use information is no longer a luxury, but a necessity for Entrepreneurship Education. The goal of entrepreneurship education enables the trainees and students to consider self employment as a viable option upon graduation from their institutions. Kalu and Onwukwe (2008) states that ICT permeates the business environment, it underpins the success of modern corporations, and it provides governments with an efficient infrastructure. At the same time, ICT adds value to the processes of entrepreneurship education, and in the organization and management of entrepreneurship sustainability. The internet is a driving force for much development and innovation in both developed and developing countries.

The use of ICT cuts across all aspects of economic and social life. Entrepreneurship developments in ICT are very rapid. This is because new versions of the old technology are on the increase. New and better ways of doing the old things are now with us. Technology quickly becomes obsolete requiring new skills and knowledge to be mastered frequently Adaptation is only possible when based on a sound understanding of the principles, and concepts of entrepreneurship education.

Entrepreneurship Education in Nigeria

The term entrepreneurship is derived from the term "entrepreneur". According to Encyclopedia Americana (1989); Entrepreneur is a business man who assumes the risk of bringing together the factors of production and receives his reward in form of profit from market value of his products. Okeke (2007) defines entrepreneurship as the ownership and management of a private business and the bedrock of small scale business oriented towards the production of goods and services to satisfy the needs and wants of consumers. Dawodu (2005) observed that entrepreneurship enhances economic development, creates jobs opportunities, transforms traditional industries, and stimulates investment and increase per capital income and output.

On the other hand, entrepreneurship skills are relevant skills and competencies that will enable an individual seek and run an enterprise successfully. Richen and Salagriik (2003) noted that entrepreneurial skills are acquired through training that emphasizes the acquisition and development of appropriate knowledge and skills that will enable an individual to maximize the resources around him within the limits of his capacity. Therefore, entrepreneurship education is a conscious effort geared towards the education and development of entrepreneurial knowledge, skills and ability essential in the management of an economic venture.

Entrepreneurship education is important to us because it is an education and training that allows students to develop and use their creativity to initiate responsibilities and risks. It has social and economic values. It helps to prepare the individual for life and most importantly, it gives a career opportunity to students or individuals who may never go to higher institution. Onwukwe (2008) rightly described the importance of entrepreneurship education as an education capable of reducing poverty in a population and empowering the disadvantaged segment of the population. A

teacher who is well trained in entrepreneurial skills using information and communication technology will certainly teach the students skills that will be useful to them as well as change the society for better. Not only that the declining economic fortunes and rising waves of unemployment should be minimized through entrepreneurship education

The reorientation towards entrepreneurial education must be the focus of government at large. A shift must be made from the presently mounted entrepreneurship education in our institutions which is theory as usual "to entrepreneurial spirit/skills development in the institutions.

Objectives of Entrepreneurship Education

The objectives for Entrepreneurship Education include but not limited to:

1. Identify and solve problems using critical and creative thinking.
2. Examine the link between Science, Vocational and Technical education, small business and entrepreneurship.
3. Organize and manage oneself and one's activity.
4. Develop the spirit of creativity, logical thinking, self-reliance, independence and freedom of making one's own decision.

Role of Entrepreneurship in the Economic Development of the Country

1. **Economic and Support Facilities Linkages:** No business exists alone without contacting other organizations or enterprises for one thing or other. The various sectors of the economy seem to be interrelated in the areas of production, distribution and preservation. Entrepreneurs or business organizations provide the needed local manpower, technical knowledge and services needed to operate and maintain facilities for constant production.
2. **Rural Saving Mobilization:** the establishment of community banks is a policy to help to mobilize rural savings for economic uses. These savings help to boost economic activities in rural areas.
3. **Utilization of Local Resources and Raw Materials:** The establishment of small business has helped to mop up the local agricultural products because these enterprises make use of the products for local manufacturing and this help to check waste.
4. **Generation of Employment Opportunities:** All the small and medium scale business generates more employment opportunities than most big enterprises. Many people depend on their business for their employment and may employ others to assist them.
5. **Stimulation of Indigenous Entrepreneurship Development:** the experience and skill gained in small business help in the operation and management of big business.
6. **Modification of Traditional Industries:** The development of indigenous and local industries and technologies may be achieved through entrepreneurship education. Countries like Japan, Taiwan, Singapore, South Korea and so on gained substantial improvement in their local and traditional industries through indigenous entrepreneurship education.

Agencies for Promoting Entrepreneurship Education

Various agencies have been established in Nigeria to promote entrepreneurship and self employment. They include:

1. **Small and Medium Enterprises Development Agency of Nigeria (SMEDAN):** The SMEDAN was established by the Act 2003 as amended in 2004. It is charged with the

responsibility for promoting and facilitating development programme in the small and medium-scale industrial sub- sector. Its mission is to facilitate the access of micro, small and medium entrepreneurs to all the resources required for development SMEDAN (2007). SMEDAN provides entrepreneurship development services. The agency organizes capacity building programmes for prospective entrepreneurs to create awareness of business opportunities in various areas (fish farming, waste recycling, snail farming, and so on SMEDAN has developed two entrepreneurship development programmes – public service entrepreneurship targeted at public servants who are retired from the public service and youth coppers to assists them to engage in self-employment).

2. **Industrial development Centers:** Industrial Development Centers (IDCs) were established to render free technological managerial assistance to small and medium enterprises towards the establishment of new enterprises as well as the development, modernization and growth of existing enterprises. IDCs were established in 1962/1963 under the regional governments as an agency to promote small scale industries and taken over by the Federal Government in the 1970s. They serve as advisory and technical support centers for small-scale business.
3. **National Development for Employment Entrepreneurship Development Programme (NDEEDP).** NDEEDP runs an entrepreneurship Development programme for graduates of tertiary institutions and retired public/private sectors workers to enable them identify business opportunities. Participants are identified during a sensitization training conducted during the NYSC orientation programme. This is followed by the Start-Your-Own-Business training programme. In 2004, 37,687 NYSC members benefited from the entrepreneurship training programme, while 15,374 graduates of tertiary institutions benefited from the Start-Your-Own Business training (NDE, 2004 cited in Onwukwe 2008).
4. **Entrepreneurship Development Studies in Universities (EDS):** The National Universities Commission has made it mandatory for all students to be exposed to entrepreneurship training at university level. Most universities have established centers for entrepreneurship studies. A number of courses are offered to students in their third year. The courses are compulsory for all students irrespective of discipline.
5. **Private Entrepreneurship Development Programmes (PEDP):** A few NGOs also offer entrepreneurship development programmes they include the FATE foundation in Lagos, which promotes business and entrepreneurial development. It equips aspiring entrepreneurs with skills, toots, networking, and financing that they need to establish successful business. It targets youth aged between 22-23 years with a university degree. There is a mentoring programme as well as a loan support service for aspiring entrepreneurs.

ICT as a Tool for Entrepreneurship

Improved entrepreneurship education is essential to the creation of effective human capital in any country (Eroh, 2007). The need for ICT as a tool in entrepreneurship education can not be over emphasized. In this technology-driven age, everyone requires ICT competence to survive. Entrepreneurship educators are finding it very necessary to train and re-train their employees to establish, increase their knowledge of computers and other ICT facilities (Adomi and Amic, 2006). This calls for early acquisition of ICT skills by students of entrepreneurship education.

The ability to use computers effectively has become an essential part of everyone's education. Skills such as bookkeeping, clerical, and administrative work, stocktaking and so forth, now

constitute a set of computerized practices that form the core IT skills package: spreadsheets, word processors, and databases (Adomi 2005).

The demand for computer/ICT literacy is increasing in Nigeria, because educators realize that computers and other ICT facilities can enhance entrepreneur education. On the other hand, educators have also realized that computers can be a threat to their job, and the only way to enhance job security is to become computer literate. With the high demand for computer literacy, the teaching and learning of these skills is concern among entrepreneurs' educators (Brakel, 2003). This is also true of other ICT components.

New instructional techniques that use ICTs provide a different modality of instruments. For the student, ICT use, allows for increased individualization of learning. In schools where new technologies are used, students have access to tools that adjust to their attention span and provide valuable and immediate feed back for literacy enhancement, which is currently not fully implemented in the Nigerian school system (Eneku & Emuka, 2000). ICT as a tool will prove beneficial in improving Nigeria's educational system and giving students a better entrepreneurship education.

Problems of Entrepreneurship Education

1. **Absence of Mentorship:** There is need to introduce a mentorship programme into the training activities, so that young entrepreneurs can learn from successful businessmen.
2. **Institutionalizing Business Training in skills acquisition programmes:** Business training should be a core part of all vocational and skills acquisition programmes since most of the graduate of these programmes are expected to end up in self-employment.
3. **Short duration of Programmes:** Most of the programmes are short of duration ranging from one week programmes to a few weeks/months. There should be enough time to incorporate practical elements.
4. **Inadequate funding and capacity:** Considering the magnitude of the youth employment problem in Nigeria, and the number of potential beneficiaries there is need for increased findings in order to reach a larger number of youth annually.
5. **Absence of linkages between training agencies and institutions:** Most tertiary institutions have nothing or little evidence of collaborative arrangements between them and enterprises development agencies in the country.
6. **Linkages between Entrepreneurship Development Agencies:** The executing agencies were set up by different laws and care was taken to ensure little overlapping between their mandates. There is need for more collaboration between them so that they exploit each others strength for different activities.
7. Poor technology of the three key agencies, only the website of SMEDAN was functioning, and even the one has to register as a member to access information and this is a very different exercise.

Conclusion

It is obvious that training in ICT and entrepreneurship is central to self reliance. The present global economic crisis and the rising waves of unemployment have greatly emphasized the need for entrepreneurship education and ICT for production of skilled and self reliant individuals. Nigerian needs functional technology centre for the production of skill and self reliant graduates from Secondary Schools, Colleges of Education, Polytechnic and Universities. In order to achieve the basic

tenets of self reliance and entrepreneurship education required for the Nigeria's society, we need to go back the drawing board and redesign our curriculum from primary to tertiary curriculum development as to decide what kind of skills, knowledge and attitude needed for the relevant for the entrepreneurship education.

Recommendations

In the light of the crucial issues discussed, the paper recommends as follows:

1. The Government and private organizations should establish a core entrepreneurship development institution that will produce mentors and empower good number of entrepreneurs in different economic sectors.
2. The Government should organize short-term entrepreneurship capacity development to assist emerging and practicing entrepreneurship to reach all sectors of economy.
3. The Government should make provision for financial assistance in form of soft loans to assist and encourage students and other public who might embark upon self-reliance industry.
4. The Government should ensure that all tertiary institutions should be made beneficiaries of ICT project.
5. Teachers with adequate skills in entrepreneurship education aim ICT complaint should be given compulsory packages for the establishment of small scale industry.
6. The Federal Ministry of Mines and Power should seek to wards establishing electricity supply in Nigeria.
7. Every graduating student from tertiary institutions should be encouraged to own basic hand and machine tools appropriate to his or her areas of specialization for entrepreneurship activities after graduation.
8. The technical and vocational education curricula in the country should be reviewed and enriched with both the theory and practical components of entrepreneurship education.

References

- Adomi, E.E. and Anie, S.O. (2006). *An assessment of computer literacy skills of professionals in Nigerian university libraries*. *Library Hi Tech News* 23(2)10-14.
- Adomi, E.E. (2005): *Internet development and connectivity in Nigeria*. *Program* 39(3):257-58.
- Dawodu, F.A.A. (2005): *"Sustainable partnering in Niger Delta"*. *A Journal of Management and Technology*. *Idah*.
- Encyclopedia Americana* (1989). Chicago. Heinemann Books.
- Enuka, U.A. & Enuka O. (2000). *Breaking down the walls. Computer application in correctional/prison education*. *Benin Journal of Education studies* 12113 (112):64-71.
- Evol, C.J. (2007). *Policy networks and the transformation of secondary education through ICTs in Africa*. *International Journal of Education and Development using ICT (IJEDICT)* 3(1), 64-84.
- Iwu, A.O. & Ike, G.A. (2009). *Information and communication technology and programmed instruction for the attainment of educational goals in Nigeria's secondary schools*. *Journal of the Nigeria Association for Educational Media and Technology* 1(1) September, 2009.
- Kalu, I.N. & Onwukwe (2008). *Introduction to small scale Business and Entrepreneurship Education*. *Current stars publishers' international company*. Owerri.
- Nzeako, R.C. (2008). *Opinion of students on the availability of and utilization of Information and Communication Technology in National Open University of Nigeria M.Ed thesis: University of Port Harcourt, Nigeria*
- Nigeria Youth Employment Action Plan (NIVEAP 2009-2011)*.

Okeke, B.C. (2007). *Preparation for Entrepreneurship and Entrepreneurship opportunities in Industrial Technical Education in contemporary Nigeria. Paper presented at a public lecture organized by School of Industrial Technical Education, Federal College of Education(Technical) Umunze,Nigeria*