

# ICT And Entrepreneurship Education

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*Abstract: Information and communication technology has changed the way people work and conduct business. The transformation of the globe into a global village has been made possible by information and communication technology. This report acknowledges the effects of ICT on entrepreneurial education. Additionally, it covers some of the issues that hinder ICT adoption as well as the ICT resources that are frequently utilized in business transactions. This essay also looks at the problems, difficulties, and approaches associated with entrepreneurial education. The report comes to a conclusion and offers suggestions on how to achieve success.*

## I. INTRODUCTION

The usage of information and communication technologies has grown to be so substantial in many nations today, that it is one of the most important indicators of national development. Human communication, learning, and other business talents have been significantly altered by information and communication technology. Information and communication technology, or ICT, refers to the tools used for gathering, preserving, modifying, and disseminating information in a variety of ways (Onyeneho and Ekwue, 2008). To enhance knowledge and develop skills, education refers to a process of teaching, training, and learning, particularly in schools or universities. The economy is significantly impacted by information and communication technology (ICT), which is regarded as a general-purpose technology. Information is both produced and transmitted. It involves tools like the telephone, analog, digital, or GSM, television, radio, fax, computer, and many other new technologies that enable convenient cross-cultural and national communication. According to Blinder (2005), the third industrial revolution is the ICT revolution, a purpose revolution. ICT has sparked growth across the board in economic contacts, not the least of which is the emergence of entrepreneurial competencies. The definition of "entrepreneurship" has changed as a result of its position from being a time- and space-limited entity to a more ubiquitous concept incorporating the utilization of intangibles like ideas and experiences in the development of possibilities.

## II. IMPACT OF ICT ON ENTREPRENEURSHIP EDUCATION

ICT has produced a platform that makes it simple for anyone to communicate ideas and information. For instance, the internet has created a favorable atmosphere where anybody interested in starting a business may do so without the burden of looking for a specific site and/or physical infrastructure. ICT's explosive development and growth have now permeated every sphere of human endeavor. With the advent of new technology like satellites, supercomputers, the internet, and communication apps, the globe started to resemble a small hamlet. In a global community when boundaries are adopted on a large scale, this is referred to as "globalization." In other words, it refers to the process by which a business or company starts operating. The influence of the internet on global communication demonstrates how the internet's ability to bridge geographic distances. A new generation of innovators, risk-takers, and business creators is also brought on by this trend. These individuals are referred to as members of the new generation of entrepreneurs, whose deliberate risk-taking is totally based on the ICT revolution. While many enterprises, organizations, and people with higher levels of education and money now have access to the internet, the Global System for Mobile (GSM) has emerged as the primary means of communication for the great majority of people with low incomes. With the 2001 introduction of the Global System for Mobile (GSM), Nigeria was not excluded from the ICT blitz. ICT manifests in all aspects of human

lives, be it engineering, health, education, etc, and it is also a pathway to achieving the Millennium Development Goals (MDG), which are consistent with Nigeria's National Economic and Empowerment Development strategies (NEEDS) instituted in 2004 (Alumanah, 2005).

Entrepreneurship may be defined as the process of seizing a chance to add value, whether or not this opportunity entails the knowledge of a brand-new organization. The Global Entrepreneurship Monitor (2008) views entrepreneurship as a process that involves not only the initial attitudes and ambitions of would-be entrepreneurs but also their evolving attitudes, activities, and aspirations at different phases of the entrepreneurship endeavour. Three development stages, namely conception, birth, and persistence, were used to categorize the phases. A more active early or "nascent" phase, during which firms are in gestation, follows the period of conception, where general goals are expressed (GEM 2008). The birth stage is when the initial operational goals are really achieved, and the persistence stage is when the firm has been operating for at least three years and is still thriving thanks to creative solutions and effective resource management. The areas of evaluation and record-keeping in education are other areas where information technology (IT) is beneficial (Ozaji, 2003). Computers may be used to administer multiple-choice tests. Records are not only kept and retained for a long time with the use of computers, but they can also be quickly retrieved and updated. Projectors, public address systems, and other information technology tools can help with some of the issues that arise from big classrooms using these IT gadgets, the teacher or whoever is in charge can even record the highlights of the lesson, illustrations, diagrams on a given topic on diskettes and CD-ROMs.

### III. ICT AND EDUCATION

The education industry has been completely transformed by ICT innovation. The style of teaching and learning has altered as a result of the usage of ICT resources such as computers, video disc players, multimedia projectors, the internet, video conferencing, televisions, etc. These ICT technologies facilitate the communication of knowledge, concepts, and instructors with students. Due to its other capacity to promote the spread and acquisition of knowledge, ICT holds the foundations for a knowledge economy (Morale, Gomez and Mellese, 1998).

Students make judgments, evaluate data, and learn new skills in a technological setting using ICT resources. ICTs would give pupils effective tools for textual representation of their knowledge. graphics, pictures, and video (UNESCO, 2002).

### IV. ICT AND ENTREPRENEURSHIP EDUCATION

Given how crucial ICT is to every part of our personal and professional life, the IT entrepreneur is essential to progress. For instance, ICT entrepreneurship in the current era of globalization enables the nation to become a producer and developer of goods and services. ICTs serve as the foundation

of the world economy. Most schools and businesses offer programs in entrepreneurship education. Entrepreneurship education must cover topics that will spur change in the contemporary corporate environment. Entrepreneurship is the creative and self-assured capacity of a person to put ideas into practice in a way that is sustainable and lucrative. An entrepreneur, according to Akhemonkhan (2005), is a person with the capacity to recognize and assess business possibilities in their surroundings, assemble resources to capitalize on those chances, and take the necessary steps to achieve success.

### ICT RESOURCES

Some of the ICT resources widely used for business transactions in Nigeria are:

- ✓ *COMPUTER*: Baskers and Yeates (1985) defined a computer as "a device for performing automated information (or data) processing tasks". A computer is an electronic device capable of performing complex calculations at an electronic speed. The computer has the merit of linking management with the vital information held in files relating to production, accounts, personnel, sales and all other functions of a business.
- ✓ *FAX*: Fax machine is used in sending facsimile copies of documents electrically to another office within or outside the country.
- ✓ *THE INTERNET*: Is a worldwide inter communication network which enables users to globally have access to data/information. International Network Telecommunications (INTERNET) is one of the most modern and popular telecommunication equipment.
- ✓ *ELECTRONIC MAIL (E-MAIL)*: This is used to send message to distant places through electronic signals received in written form, (at the receiving end).
- ✓ *ATM*: This refers to Automated Teller Machine. This is widely used to process business transactions. An account holder with a bank is issued with an ATM card. This enables the customer to have access to the bank account conveniently without meeting any of the bank staff. The customer knows the personal identification Number (PINS) and uses it to transact business any time. Whenever the card is inserted into the machine, it gives information options to the customer which would facilitate the transactions.
- ✓ *E-COMMERCE*: This offers marketers the opportunity to transact business directly to customers in both the consumer market and the business-to-business market. Many organizations have installed network where customers obtain pieces of information. E-commerce refers to direct selling or marketing of goods and services.

### V. PROBLEMS CONFRONTING ICT UTILIZATION

The use of information and communication technology has fundamentally altered how things are done. However, there are issues that make it difficult to use information and communication technology effectively. The following are some of these issues:

- ✓ **IRREGULAR POWER SUPPLY:** constitutes a major problem in the use of ICT. This irregular power supply affects the regular use of ICT resources. ICT facilities require to make them work.
- ✓ **LACK OF ICT COMPETENT TEACHERS:** There is also acute shortage of teachers, engineers and technicians in our schools to teach and maintain the facilities.
- ✓ **HIGH COST OF ICT FACILITIES:** The cost of procuring ICT facilities in the face of inadequate funding for education hinders effective utilization of ICT facilities.
- ✓ **LACK OF RELEVANT ICT FACILITIES:** In order to use ICT effectively, certain basic facilities like computers telecommunication facilities, internet, etc should be provided in and out of institutions. A lot of schools in Nigeria do not have these resources in place and this greatly affects its utilization.

## VI. ISSUES IN ENTREPRENEURSHIP EDUCATION

Entrepreneurship Interested When well-known entrepreneurship studies like McClelland's "The Achieving Society" (1961) and Collins, Moore, and Unwalla's "The Enterprising Man" (1964) were released, education expanded quickly in the late 1950s and early 1960s. New firms are increasingly considered a key driver of national economic development and a remedy for falling unemployment rates (ACS et al 1999).

Due to the focus on entrepreneurship as the engine for economic growth and job creation, law enforcement agencies have created a wide range of policies to encourage entrepreneurship (Guyanah and Fogel, 1994). Everyone agrees that entrepreneurship education is crucial for a nation's economic advancement (Gibb, 1993).

According to Gibb (1993), there is a clear difference between "enterprise and entrepreneurship" education, with the former emphasizing the development of personal enterprising, attributes, and attitudes that prepare people for self-employment, and the latter focusing on the development of functional management skills and abilities that prepare people to start, manage, and grow a business. Despite the differences, the main objective of both enterprise and entrepreneurship is to promote the establishment of independent businesses.

## VII. THE DICHOTOMY OF ENTREPRENEURSHIP EDUCATION

Opinions abound in entrepreneurship programs about the questions of whether entrepreneurship can be taught and if it is a trait that can be acquired. There is a difference between the teachable and unteachable aspects of entrepreneurship, according to authors like Shepherd and Douglas (1997). The optimal approach between students' demands and teaching strategies must be found in order to manage the teachable skills and provide a successful entrepreneurship education. According to Jack and Anderson (1998), teaching entrepreneurship is both a "science" and an "art," with the former referring to the practical abilities needed for company startup (a skill set that seems to be teachable) and the latter

referring to the entrepreneurial spirit, which cannot be taught. According to (Dana, 2001), the answer to the question of whether entrepreneurship can be taught relies on how the term is defined at its core. This author made the case that while it is feasible to teach aspiring entrepreneurs how to recognize opportunities, doing so is more challenging. Additionally, Sae (1996) argued that entrepreneurship education cannot produce an entrepreneur since each person is accountable for his or her own achievement; rather, it can only show the steps required in becoming successful.

## VIII. OBJECTIVE OF ENTREPRENEURSHIP EDUCATION

From the problems raised so far, it is clear that entrepreneurship education promotes entrepreneurship as a career choice and improves comprehension of the steps required in starting and running new businesses (Hills, 1988). The four goals of entrepreneurship programs are trainer training, business formation, small business development, and entrepreneurship awareness. Jamieson (1984) proposed that entrepreneurship education offers three separate types of training: training "about" entrepreneurship (i.e., entrepreneurship awareness), training "for" entrepreneurship (i.e., preparing entrepreneurs for business formation), and training "in" entrepreneurship (i.e. training for the growth and development of established entrepreneurs).

The goal of entrepreneurship is to effectively foster all these objectives for the creation of new business and prepare participants/students for career success.

## IX. CHALLENGES OF ENTREPRENEURSHIP EDUCATION

Entrepreneurs in Nigeria are faced with a number of challenges which include the following:

- ✓ **LACK OF CREDIT FACILITIES:** Some potential entrepreneurs find it difficult to access credit for their businesses because of high interest rates charged by commercial banks. For instance, a lot of banks have put their interest at 28%, thus, making it difficult for low income entrepreneurs to obtain loans for their businesses.
- ✓ **LOW STANDARD OF EDUCATION:** Entrepreneurs who are not knowledgeable cannot easily penetrate into some businesses as educated entrepreneurs do. This is the era of information Technology. The world is the global village; hence, an entrepreneur must be conversant with events around. Education has become a major determinant in preparing and empowering an entrepreneur. Education is a key to knowledge and power.
- ✓ **CORRUPTION:** This also adversely affects entrepreneurial activities. Corruption has eaten deep into the fabrics of our society. Hardly can anything be done without expecting something in return. To procure licenses, permits, goods and services from government agencies, entrepreneurs must pay bribes to those involved. This creates a lot of problems to entrepreneurs as well as entrepreneurship education.

- ✓ *LACK OF ENFORCEMENT OF PATENT LAWS*: This always discourages entrepreneurs from starting and commercializing their business ideas and inventions.
- ✓ *GOVERNMENT POLICIES*: Government inconsistency constitutes another challenge which entrepreneurs do not have any control over. Entrepreneurs cannot in any way influence government's policy or decisions.
- ✓ *LACK OF QUALIFIED PERSONNEL*: The teacher employed to handle entrepreneurship programme should be qualified and competent in terms of practical knowledge and skills to be able to impart knowledge. Some of our entrepreneurship teachers do not have adequate training and skills to manage the available resources and this affects the system.

STRATEGIES FOR ENTREPRENEURIAL PROGRAMMES ARE:

- ✓ *TAKE RISKS*: An entrepreneur should be able to take risks at all times. Risk, according to Musselman and Hughes (1969) is "the chance or uncertainty of Loss of Life, Property or Health". The risk strategy is a significant issue in business venture. For entrepreneurial programmes to succeed, the owner needs to bear a lot of risks.
- ✓ *SPOT A NEW TREND AND POUNCE*: Sometimes, there is a shift in economic trends. Whenever this happens, it creates new entrepreneurial opportunities. The shift could arise from advances in technology. Entrepreneurs should be able to spot new trends and recognize consumers' needs, desires etc.
- ✓ *EXPLOIT YOUR COMPETITORS' WEAKNESSES*: Entrepreneurs have to view the environment from the perspective of their customers. Entrepreneurs should identify the competitors' weaknesses. If a competitor has a reputation for slow delivery of certain goods, this should strengthen other entrepreneurs to act immediately.
- ✓ *ALWAYS RE-INVENTING*: An entrepreneur should be able to take chances and keep expanding the product line. Also, entrepreneurs should be able to give their business a major overhaul as appropriate to keep pace with changes in the market environment.
- ✓ *NEVER LET ADVERSITY OR FAILURE TO DEFEAT ENTREPRENEURIAL PROGRAMME*: Entrepreneurs should not accept defeat or limits that circumstances have placed upon them. An entrepreneur, no doubt, must experience stressful moments. The ranks of successful entrepreneurs are always filled with those who have refused to accept defeat.

## X. CONCLUSION

ICT facilities should be made available and operational at our institutions, given the significant benefits it brings to entrepreneurship education. There is broad consensus among academics that the ultimate goal of entrepreneurship education is to promote the establishment of independent businesses.

## XI. RECOMMENDATIONS

The following recommendations are put forward in order to strengthen both ICT application and entrepreneurship education:

- ✓ Institutions should make adequate provision for alternative source of power like providing generators in order to ensure steady supply of power
- ✓ Government, parents, and indeed all stakeholders in the education sector should provide funds to procure ICT facilities and to maintain them.

Universities, Polytechnics and Colleges of Education should offer courses in computer Technology and Information Communication Technology and embark on aggressive training of computer teachers, engineers and technicians.

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