
THE ROLES OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) IN ENTREPRENEURIAL DEVELOPMENT OF THE NIGERIAN STUDENTS IN TERTIARY INSTITUTIONS

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ABSTRACT

Entrepreneurship is an important educational innovation that provides impetus to learning. Entrepreneurship education has been recognised as an important aspect of the education system. Information and communication technology have been seen as a useful tool for effective preparation of students for skill development and future employment. However, entrepreneurship education has been hampered by the following: lack of funding, inadequate equipment and technology, and economic pressure from parents, etc. Moreover, the benefits of entrepreneurial education are observed to be enormous, compared to the challenges faced by the institutions. Based on the findings of the study, it could be concluded that ICT can be used to enhance entrepreneurship education via the following: e-advertising and e-marketing. There are also challenges faced by the institutions in their quest for the entrepreneurial development of the students. Besides, there is significant relationship between availability of ICT equipment and entrepreneurial development of students of the institutions of higher learning in Nigeria. Finally, the utilisation of ICT equipment has significant relationship with entrepreneurial development of students of the institutions of higher learning in Nigeria. One of the recommendations made in this paper was that the government should provide substantial funds for teaching in practical terms with the needed equipment, while the management of various colleges and other external agencies in Nigeria should ensure students are given enough exposure to entrepreneurship development.

KEYWORDS: Information and Communication Technology (ICT), Entrepreneurial Development, and Tertiary Institutions.

Introduction

Our society has become more complex and demanding, especially when considering the younger generations and their employment opportunities. Many young people today may finish school but hardly find a job to do in spite of their education, qualifications, and commitment. In some cases, the best opportunity for them might be the creation of their own enterprises. But,

on the other hand, setting up one's own business might not be so easy. As stated by Onwuka & Chika (2006), to realise such a solution successfully, special abilities, knowledge, and skills, as well as work experience, are needed. Work experience can be obtained through part-time jobs or other types of flexible work opportunities; however, acquiring entrepreneurial knowledge and skills is more difficult. According to Wickham (2004), entrepreneurship originated in France during the seventeenth century. In Nigeria, entrepreneurship development existed even before the coming of the colonial masters as most people in the rural and urban communities had started transacting businesses and maximizing profit in their own little ways without calling it entrepreneurship.

The most common source of such knowledge might be a school, but not all schools offer such knowledge. There are also some other alternatives – for example, young people can even find a good counselor who can help them to develop their own business ideas and give them some basic entrepreneurial skills. That is why Suleiman (2006) stated that entrepreneurship is the willingness and ability of an individual to seek for investment opportunities, to establish and to run an enterprise successfully. The entrepreneurial spirit is a pre-requisite to an entrepreneurial society and culture. This spirit is required for the overall economic growth of any nation, especially developing ones like Nigeria. In the words of Dangote, as stated by Odjegba (2005), entrepreneurship is built on vision, focus, and determination.

Recently, extremely quick developments in information-communication technology (ICT) can be witnessed. Researchers increasingly believe that investment in ICT and the existence of appropriate ICT support tools make it possible to create some kind of knowledge and ease entrepreneurial development and practises in various fields of life, such as printing and publishing, graphic design, accounting services, documentation and documentary, flashing and formatting of phones, work-at-home services such as movie script writers, research services, as well as internet services such as e-registration, e-commerce, e-marketing, and downloading of music and software applications for people, just to mention but a few.

ICT also allows for teaching the younger generations and making them aware of ICT tools which might increase their employability or self-employment capabilities. Nowadays, almost all youngsters have basic knowledge of computers, which makes it easier to teach them about ICT tools. However, it is important that teachers and counsellors also have knowledge about ICT as well as specific ICT tools. Many such tools can be used free of charge, which is another reason why they might be used for teaching and learning entrepreneurship.

Modern ICT could be used as a means to establish connections between the business and higher education sectors. It represents an important opportunity to provide young people with business competencies and entrepreneurship education. This brings benefits to a variety of stakeholders as well as the students (Hynes & Richardson, 2007). To achieve continuous improvement in entrepreneurial competencies, learning should be implemented effectively. Educators should therefore be aware of teaching methods which might be upgraded to meet the market demands and to provide the students with a set of competencies. For that reason, the use of ICT tools seems to be the best solution (Galloway et al., 2005).

Entrepreneurship education involves learning a variety of business-related competencies such as improvements in decision-making skills or skills to access information and using different ICT tools to create a better working space (DeFaoite et. al. 2003). The

quality of graduates from many tertiary institutions today is hotly debated. It is a question of particular concern to graduates who are seeking employment and to employers who consider hiring them. It has been the concern of many employers over the poor preparation of graduates for work and therefore have a strong reason for not giving them the needed job. Equally, students are not prepared enough to fit into the world of entrepreneurship as there may be a lack of information and communication technology equipment. In some cases, the equipment may be there, but students may not be allowed enough access to the equipment for effective utilization. When this happens, the opportunity for entrepreneurial development may not be guaranteed. They believe that academic standards have fallen considerably over the past decade and that a university degree or a polytechnic diploma is no longer a guarantee of communication skills or technical competence. This problem has cut across all disciplines, including students prepared to be competent and goal-oriented workers.

It is quite obvious that in spite of the large mismatch that exists between the outputs of higher institutions of learning and labour market demand, not much effort has been made by government, school owners, and researchers to find out how to fill this gap. It is on this ground that this study is carried out to assess the roles of information and communication technology (ICT) equipment in entrepreneurial development of the Nigerian youths in tertiary institutions.

Entrepreneurship Education

At the tertiary level of education, entrepreneurship education is perceived not only as a career opportunity but as a way of upgrading a young person's abilities to succeed as an employee as well as an entrepreneur. The implication, therefore, is that the overall purpose of entrepreneurship education is the development of expertise as an entrepreneur. It is the process of providing individuals with the ability to recognise business opportunities, the insight, the zeal, the knowledge, the courage, and the skills to act on them. Finally, Shai (2009) came up with a three-component categorization of the Entrepreneurship Education curriculum considered comprehensive enough to equip the products of the school system with the needed skills and capacities for future life.

- **Personal Development** – it should build confidence, motivate progress, strengthen the entrepreneurial mindset, foster a desire to achieve and inspire action.
- **Business Development** – Technical, financial literacy and skills to engage in self-employment and in entrepreneurship can lead to self-improvement. This will include the expected business and functional curricula.
- **Entrepreneurial skill's development** – It should provide training in social skills, networking, creative problem-solving, opportunity seeking, interviewing, presentations, group leadership, community cooperation, dealing with bureaucracy, local cultural norms and how they affect business, etc. Every entrepreneurship curriculum must have the following as its integral elements so as to provide the students with the cherished skills and capacities that can make them self-sufficient and highly productive in society.

The Benefits of Entrepreneurship Education

The study of entrepreneurial education has never been as important as it is today when the world is confronted with big challenges that extend well beyond the global economy. It has also

been spurred by the realisation that the extent to which the phenomenon serves as a key factor in economic development. Some of the profound benefits of entrepreneurship education include the following:

1. Improving Academic Performance of Students

As had earlier been established, entrepreneurship education goes beyond teachings on how to operate a business but extends to encouraging creative thinking and promoting a good spirit of self-worth and accountability. This shows that the phenomenon keeps people (especially youths) who for any reason lack interest in traditional school teaching committed to their work. Such people include those gifted or talented, physically challenged or financially challenged. Through entrepreneurship education, which emphasises other aspects of academic life, including self-worth, such people are motivated and enabled to work towards the realisation of their dreams. With such motivation, they perform better in their academics and graduate from school. Arguing along this line, Charney and Libecap (2003) observed that entrepreneurship is an important educational innovation that provides impetus to learning about learning.

2. Enhancing Performance and quality of Schools

By achieving improved performance in children, the quality of schools and their general performance are also improved. This rests on the fact that students who enrol in schools rather than being truants or dropouts are enabled to achieve success through entrepreneurship. They would also be able to be useful to themselves, which would have an impact on the grading and quality of the schools.

3. Aids the Realization of Goals of Education

The target of education across nations today is the programme of inclusive education. The place of entrepreneurship education in the realisation of this programme cannot be over-emphasized. As established earlier, entrepreneurship education motivates students and sustains their interest, their individual problems and challenges notwithstanding. As a result, they develop a great interest in school subjects and consequently benefit from education.

4. Increasing Economic Competitiveness

In the world today, especially in the face of the global economic meltdown, the establishment of industries capable of creating jobs and wealth has come to be an index and cornerstone for the future economic growth of any nation. Only people who are greatly skilled in entrepreneurship can establish and sustain such industries. The benefit of entrepreneurship in this area, therefore, cannot be over-emphasized. This stems from the fact that, contrary to conventional wisdom, people are born entrepreneurs, although research has shown that this is not so. As observed by Gottleib and Ross (1997), entrepreneurs are made and not born and elements of entrepreneurship can be taught and learnt. The expansion of training and educational opportunities for desiring entrepreneurs, therefore, affords them benefits that would enhance their level of economic competitiveness.

5. New Programme of Study

Entrepreneurship education is also beneficial to mankind as it provides a new programme of learning for research and teaching. Entrepreneurship education additionally offers more

practical teaching in the acquisition of skills relevant to the needs of the changing environment. This contrasts with traditional business studies, which, while well-attended, simply favour large corporations over small or start-up ventures. It is for these reasons that demand for entrepreneurship education among youths has been accelerated. Cooper, Bottomley, and Gordon (2004) asserted that the rise of programmes in entrepreneurship education has been fuelled by unprecedented student demand as students look for a style of business education that will provide them with transferable skills. This corroborates the earlier finding by Porter (1994) that entrepreneurial education emphasises imagination, creativity, and risk-taking in business, whereas traditional business schools tend to over-emphasize quantitative and corporate techniques at the expense of more creative skills.

6. Poverty Alleviation and Economic Growth

Entrepreneurship empowers people to take advantage of opportunities for wealth creation, enthroning a system of incentives that reward handwork and discourage, condemn, and punish corruption. By so doing, people, especially youths, are enabled to create opportunities for employment and, consequently, income. The generation of income leads to savings and investment, including the establishment of industries and companies, which are key factors or indices of economic growth.

The Challenges of Entrepreneurship Education in Nigeria

Despite the profound benefits of entrepreneurship education, it is still not fully developed in Nigeria. The problems that hinder the development of entrepreneurship education in Nigeria include the following:

Lack of Finance: There is limited funding and this hinders teachings in practical terms for entrepreneurial education; for financing start-ups and expansion of business ventures in order to produce successful entrepreneurs. These funds could come from internal sources like personal savings, financial support from friends and relations, traditional cooperative groups and societies, or externally from institutions like banks, government agencies, and nongovernmental organizations.

For the following reasons, these sources do not guarantee funds for young people's start-ups and business expansion. The funds from internal sources are largely inadequate due to the high poverty level. The graduates have little or nothing on their own. On the other hand, accessing funds from external sources is difficult due to demand for collateral by these agencies and, in some cases, requirements for part funding of the total amount required for an entrepreneurial activity. These collaterals and part funding are not available to the youth. The failure to present these denies them access to the funds required for the business ventures.

Inadequate Equipment and Technology: The cost of equipment is quite high and cannot be offered by most Nigerians, especially young graduates. This makes for difficulty in the development of entrepreneurship as technology is closely related to entrepreneurship. It therefore calls for the provision of affordable technologies.

Economic Pressure from Parents: There is often great pressure from some Nigerian parents who prefer their children to make money in the short term over the long-term benefits of education. This makes it difficult for young people to devote the necessary time to training in

entrepreneurship. It is also as a result of such pressures that Nigeria is faced with a high rate of child labour without any skill in entrepreneurship.

Education: Entrepreneurship demands a talented workforce. Our system of education fails to provide the necessary foundation for such a work force. Our schools up to the tertiary level presently do not have a well-developed curriculum that emphasises initiatives to increase accountability.

Entrepreneurial Attitude: The wealth of resources and the rich endowment of mineral resources for Nigeria have largely allowed the Nigerian populace and even the government to be complacent. A great majority of the Nigerian people have utopian ideas about living in affluence; in some cases, they are more imaginary than attained. Furthermore, since it is believed that there is a strong climate for entrepreneurs, there is little or no worry about entrepreneurship education. The necessary drive for an entrepreneur is not there, and this leads to poor performance in entrepreneurship. Supporting this view is the assertion by Akpa (2007) that the average entrepreneur is rugged and aggressive.

Data: Data for entrepreneurship education has been lacking. There is little or limited programme design for entrepreneurship education. Access to some vital information is denied both in offices and on the net.

Inadequate Infrastructural Facilities: Due to the inadequacy of facilities like good roads, electricity, access to information, water supply, etc., there are increased problems confronting the development of entrepreneurship education. There is a difficulty in communicating ideas and wares with other areas. Entrepreneurship cannot be fully realised without sales.

Cultural Barriers: Entrepreneurship requires a culture that respects risk taking. Without the willingness to take risks it is not possible to create value from knowledge. The culture of risk taking in Nigeria needs to be properly addressed in view of its diverse cultures which often cause a barrier to investments.

Research and Linkages: Success in entrepreneurship depends critically on openness and linkages with innovation systems in other countries. This is so because strong innovation systems depend both on the local environment and global connectivity. The level of linkages between our research centres and universities and the outside world is still not fully developed. This is highly essential for entrepreneurship to thrive.

Information and communication technology equipment and entrepreneurial development of students

The importance of information and communication technologies in students' entrepreneurial development cannot be overstated. Information and communication technology have been seen as very useful equipment for effective preparation of students for skill development and future employment. Ubah (2011) observed that with the introduction of information technology in teaching entrepreneurship education, emphasis is placed on practicable teaching methods that are more useful in vocational and technical training and on the experience of realities in the course of learning. As stated by Nwangwu (2006), ICT can be used to enhance entrepreneurship education via the following:

E-Advertising and E-Marketing

This is usually done using blogs on Google, Facebook, or even creating your own website where you can advertise your goods and services to millions of online customers all over the world. If this is incorporated into entrepreneurship education, it will enable the individual to be a global marketer of his or her goods and services. Other aspects include e-banking, which allows you to conduct financial transactions from the comfort of your own home from anywhere in the world. E-marketing is the aspect where you sell your products and services online. According to NPE (2004), the customer orders your goods online and they are delivered by parcel delivery services to any part of the world. Other network channels that an entrepreneur can use to make his or her services global and receptive include: Facebook, WhatsApp, BBM, Skype, Twitter, Goggle, e-mails, and so on.

This enhances global competition, which enables us to know what everyone else is doing and what we want to compete and also improve on. To be globally competitive, one must be competent in the skills required in the global market place. ICT incorporated into entrepreneurship education will help prepare students for successful and eventual leadership in the new global market place. This is the responsibility of the educational institutions today. Entrepreneurship education has been recognised as an important aspect of our education system. The national policy of education (NPE 2004) states that for education to be functional, it has to be relevant, practical, and foster the acquisition of appropriate skills and the development of competencies as equipment for individuals to live and contribute meaningfully to society. This shows that there is a need for education to be geared towards inculcating skills and competencies necessary for self-reliance, capacity building and national development.

According to Enu (2012), entrepreneurship education is rebranding education meant to guarantee a comprehensive educational system, reengineering arising from the obvious differences in the existing educational system. It helps to equip the student with the requisite skills and competencies needed in the current world of work. Modern ICT could be used as a means to establish connections between the business and higher education sectors. It represents an important opportunity to provide young people with business competencies and entrepreneurship education. This brings benefits to a variety of stakeholders as well, not only the students – e.g., faculties, other educational institutions at all levels, enterprises, etc. (Hynes & Richardson, 2007). Entrepreneurship education involves learning a variety of business-related competencies such as improvements in decision-making skills or skills to access information and using different ICT tools to create a better working space (DeFaoite et. al. 2003).

Conclusions

Based on the findings of the study, it could be concluded that ICT can be used to enhance entrepreneurship education via the following: e-advertising and e-marketing. There are also challenges faced by the institutions in their quest for the entrepreneurial development of the students. Besides, there is a significant relationship between the availability of ICT equipment and the entrepreneurial development of students in the institutions of higher learning in Nigeria. Finally, the utilisation of ICT equipment has a significant relationship with the entrepreneurial development of students in the institutions of higher learning in Nigeria.

Recommendations

The following recommendations were made based on the conclusion of the study:

1. Government should provide substantial funds for teaching in practical terms with the needed equipment, while the management of various colleges and other external agencies in Nigeria should ensure students are given enough exposure to entrepreneurship development.
2. Due to the fact that entrepreneurship demands a talented workforce, our system of education should provide the necessary foundation for such a work force. Besides, adequate provision of data for entrepreneurship education and programme design should be there.
3. Success in entrepreneurship depends critically on openness and linkages with innovation systems in other countries. Hence, the level of linkages between our research centers and universities with the outside world should be fully developed for this is highly essential for entrepreneurship to thrive.
4. Computer experts should be uniquely placed to contribute, if not to lead, the continuing debate and activities around utilization of ICT in teacher education at the classroom level while government should ensure adequate ICT equipment are made available for students to use in their studies effectively.
5. Computer Association of Nigeria and other computer professional bodies should be made to participate effectively in the use of ICT to develop students entrepreneurially in order to establish in them with firm foundation in skill acquisition, employment opportunity and wealth creation before and after their graduation.

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