USE OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) AS A TOOL FOR DELIVERING ENTREPRENEURIAL COMPETENCIES IN BUSINESS EDUCATION PROGRAMME IN NIGERIA

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Abstract
The purpose of this study was to assess the use of Information and Communication Technology (ICT) as a tool for delivering entrepreneurial competencies in business education programme in Nigeria. Specifically, the study highlighted the concept of entrepreneurship education, types of entrepreneurial education which include Intra-preneurship, social entrepreneurship, eco-entrepreneurship, digital entrepreneurship, inclusive entrepreneurship and female entrepreneurship. An entrepreneurial competency framework made of knowledge, skills and attitude was developed. The study further developed some entrepreneurial competencies for business education programme made up of conceptual and relationship competencies, business and management competencies, entrepreneurial competencies and human relations competencies. The study further highlighted business education programme and the use of ICT tools for delivering entrepreneurial competencies which include computer assisted learning, computer assisted research and distance learning that could be used to increase access and improve the relevance and quality of education. The study concluded that the use of ICT in delivering entrepreneurial competences can motivate business education teachers and learners and this can help them to clarify difficult concepts, save time, make learners active, and simplify the teachers’ work. It was recommended among others that government should set machinery in motion to provide an enabling environment for entrepreneurship education to thrive in all institutions of learning especially in business education programme.

KEYWORDS: ICT tools, entrepreneurial competencies, Business Education Programme

Introduction
Information and Communication Technology (ICT) is an instrument for quality education all over the world. The promotion of ICT in education especially in the developing field of entrepreneurship education cannot be viewed in isolation. This is because entrepreneurship education has become a policy priority in all fields of education. Policy-makers in the educational sector use entrepreneurship education as a means of educating potential entrepreneurs for job creation and economic growth. Eurydice, (2012) stated that the incorporation of entrepreneurship as a competence in educational curricula is also on the rise. As a result, efforts are being made to create and refine practical tools which encourage the development of entrepreneurial competences in education and training. The ultimate goal of all entrepreneurial education is to develop some level of entrepreneurial competencies among learners in terms of knowledge, skills and attitudes. Entrepreneurial competencies are the knowledge, skills and attitudes that affect the willingness and ability to perform the entrepreneurial job through training and development.

In the field of business education, entrepreneurship education is seen as a means of educating potential entrepreneurs for job creation, poverty alleviation, and employment generation for sustainable economic growth. The Federal Government of Nigeria, as part of its campaign against unemployment, endemic poverty and retro-development, instructed tertiary institutions in 2006 to introduce entrepreneurship education as a compulsory subject for all undergraduates irrespective of discipline (NUC, 2006). This idea was to promote entrepreneurial education in order to enhance entrepreneurial knowledge and promote entrepreneurial competences in Nigeria. The introduction of entrepreneurship education in the curriculum of education by the government of Nigeria according to NUC (2006) made it obvious that entrepreneurship education be considered as an effective way of equipping graduates with the desired employability skills. Entrepreneurship education is therefore, an absolute combination of business education programme. Therefore, efforts should be made to identify ICT tools for delivering entrepreneurial competencies in the training of business education programme. It is in the light of the foregoing that this study seeks to highlight ICT tools for delivering entrepreneurial competencies in business education programme in Nigeria. Specifically, the study described the concept of entrepreneurship education, types of entrepreneurial education, entrepreneurial competencies, business education programme, use of ICT tools for developing entrepreneurial competencies in business education programme.

The Concept of Entrepreneurship Education

Entrepreneurship education refers to all activities aiming to foster entrepreneurial mindset, attitude and skills that cover a range of aspects such as idea generation, start-up,
growth and innovation (Fayolle and Gailly, 2008). Entrepreneurship education is a pragmatic and meaningful interaction between learner and instructor for the purpose of developing the ability of the learners to identify, evaluate and generate ideas of solving business problems in a unique way. Entrepreneurship, therefore, brings out an individual’s ability through proper training to turn ideas into action. It includes creativity, innovation and risk taking, as well as the ability to plan and manage projects in order to achieve objectives. From the above assertions, it can be seen that the primary purpose of entrepreneurship education should be to develop entrepreneurial capacities and mindsets. In this context, entrepreneurship education programmes have different objectives, such as developing entrepreneurial drive among students (raising awareness and motivation), training students in the skills that will enable them set up a business, manage its growth and also developing the student’s entrepreneurial ability to identify and exploit opportunities.

The European Commission (2009) pointed that the purpose of entrepreneurial education in institutions of learning is to teach in order for the student to possess skills that form the basis of an entrepreneurial mindset and behaviour. It also raises students’ awareness for self-employment and for running small business enterprises. Entrepreneurship education can be seen as a moving vehicle of any country that provides business skills and knowledge of how to start and successfully run a business. O'Connor, (2013) and Heinonen and Hytti, (2010) categorized entrepreneurial education into three approaches: Teaching “about” entrepreneurship means a content-laden and theoretical approach aiming to give a general understanding of the phenomenon. Teaching “for” entrepreneurship means an occupationally oriented approach aiming at giving potential entrepreneurs the requisite knowledge and skills. Teaching “through” means a process based and often experiential approach where students go through an actual entrepreneurial learning process (Kyrö, 2005). However, this is applied to various types of entrepreneurial education as explained in the next section.

Types of Entrepreneurship Education

This section presents an overview of the types of entrepreneurial education and their meanings in terms of creative resources, innovative capabilities and perceiving opportunities which create value for economic development as described by the European Commission (2015). The types of entrepreneurship education include Intrapreneurship, social entrepreneurship, eco-entrepreneurship and eco-innovation, digital entrepreneurship, inclusive entrepreneurship and female entrepreneurship. The various types of entrepreneurship education are further discussed below:

Intrapreneurship is generally defined according to Antoncic and Hisrich, (2003) as an emerging behaviour which involves intentions and actions that depart from
‘customary ways of doing businesses. It plays an important role in the innovativeness and competitiveness of established and large organisation. For instance, the need for ‘idea generators’ and ‘initiators’ within a large organisation and suggests that innovation does not happen without a dedicated and passionate small group of individuals which are intrapreneurs.

Social entrepreneurship is an emerging type of entrepreneurship which targets social/societal value creation. Defourny and Nyssens, (2010) stated that social entrepreneurship may be seen as a phenomenon which combines two inseparable elements which are economic and community/social elements. Phillips and Tracey, (2007) opined that there are two major strands of social entrepreneurship. One considers social entrepreneurship regardless of the creation of a social venture and source of financing and is supported by philanthropists, government or similar organisations. The second focuses only on social entrepreneurship which generates income while pursuing social outcomes, and highlights the capacity of a social enterprise to be both commercially viable and socially constructive.

Eco-entrepreneurship and eco-innovation are concerned with environmental issues that have been brought into play. Terms like green businesses, ecological enterprises, sustainable entrepreneurship or eco-innovation appear increasingly on the policy agenda all over the world. Kirkwood and Walton, (2010) explained that it is also found in the discourse of ecological economics, entrepreneurial behaviour and in an increasing number of research streams connected to innovation, growth (green growth) and employment (green jobs). Schaper (2012) discusses three key factor areas of eco-entrepreneurial activity which generally encompass those related to a business venture. The first refers to risk, uncertainty, and possibility of failure, combined with a need to identify opportunities, research them, harness resources to turn the idea into a reality, execute business development and oversee its growth. The second aspect is the commercial activities that have a positive effect on environment and can be seen as a move to a more sustainable future. The third set of factors refers to the individual’s intentions, beliefs and drive, associated with personal values and aspirations.

Digital entrepreneurship and ICT entrepreneurship came as a result of the digital technologies boom facilitated by the creation of new entrepreneurial avenues. European Commission (2015) stated that digital entrepreneurship was associated with entrepreneurs in the IT sector of the economy. It is the use of digital technologies when doing business, in production or other business operations, across different sectors. Digital enterprises are characterised by a high intensity of utilisation of digital technologies to improve business operations, invent new business models, sharpen business intelligence, and engage with customers and stakeholders. Entrepreneurs who undertake digitally-related activities certainly need to be fast moving and able to adapt well in a changing environment.
Furthermore, on a more general note, using digital technologies in entrepreneurial activities is closely linked to the discussion on collaboration, networking and Web 2.0, and Enterprise 2.0. In cases where communication with users and partners is based on digital technologies, digital competences become an important part of entrepreneurship competences.

Inclusive entrepreneurship according to European Commission (2013) refers to the provision of equal opportunities for all citizens to take the path of entrepreneurship. This approach complements the social inclusion policy agenda, addressing barriers to business creation and self-employment faced by people who are disadvantaged or under-represented in entrepreneurship activities. These groups include young people, older people, the disabled, women, ethnic minorities, the unemployed and others. It reflects the belief that entrepreneurial activity is for everyone regardless of their personal qualities and conditions. From inverse perspective, entrepreneurship and entrepreneurial skills are considered core components when building socially inclusive and highly participatory economies in an increasingly global and competitive world (World Economic Forum (WEF), 2009).

Female entrepreneurship aims to encourage women to start businesses, in order to address the statistical imbalance in the numbers of men and women entrepreneurs. Encouraging women to go into business is a winning strategy for bridging the gender gap and fostering economic growth (Mitchelmore and Rowley 2013). For instance, OECD statistics show that women are less likely than men to be self-employed, in the process of starting a business, running a business, or to be the owner of one (OECD/European commission, 2014). No matter the type of entrepreneurship, the ultimate goal of all entrepreneurial education is to develop entrepreneurial competencies among students/learners. The next section that follows discusses entrepreneurial competencies.

**Entrepreneurial Competencies**

Competence/y/ies according to Moore, Cheng, and Dainty, (2002) is a set of terms with widespread use in the human resource development domain used in assessment of people’s job performance. Sanchez (2011) defines competencies as a cluster of related knowledge, traits, attitudes and skills that affect a major part of one’s job; that correlate with performance on the job; that can be measured against well-accepted standards; and that can be improved through training and development. Many scholars like Fisher, Graham, and Compeau, (2008), Krueger, (2007), Sánchez, (2011), Murnieks, (2007) and Markman, Baron, and Balkin, (2005) in their various studies also stated that entrepreneurial competencies lay emphasis on knowledge, skills and attitudes respectively. The definition and approach according to Mwasalwiba, (2010) affects educational objectives, target audiences, course content design, teaching methods and student assessment procedures, leading to a wide diversity of approaches. Figure 1
demonstrates entrepreneurial competencies framework developed during the study as presented below:

**Entrepreneurial competencies framework**

![Diagram of entrepreneurial competencies framework]

**Source: Researcher, 2016**

From the above diagram, Knowledge is captured by cognitive competences, skills are captured by functional competences and attitudes are captured by social competence. In an attempt to review competencies of successful entrepreneurs in literatures, this study produces some entrepreneurial competencies and developed an entrepreneurial competencies framework that could be adopted in business education programme. The entrepreneurial competencies include: conceptual and relationship competencies, business and management competencies, entrepreneurial competencies, and human relations competencies as shown in figure 2:

**Figure 2: Entrepreneurial competencies for business education programme**
These entrepreneurial competencies, if integrated into business education programme would foster entrepreneurial knowledge, skills and attitudes such as developing entrepreneurial drive among students of business education, training them in the skills that will enable them set up a business, manage its growth and also developing the student’s entrepreneurial ability to identify and exploit opportunities. The next section explained business education programme in the delivery of entrepreneurial competencies.

Source: Researcher (2016)
Business Education Programme and Entrepreneurial Competencies

Business education is an educational programme offered in tertiary institutions which prepare students for careers in business by inculcating skills, knowledge and competencies that are useful in the business world and the society at large. Business education programme empowers graduates with desired skills, knowledge and values that would make them to be self-employed or employable by others. Enang (2014) stated that business education is that part of vocational and technical education that provides knowledge, skills and competencies for a teaching career in academics, office occupation, and experts in business for self reliance. It is also geared towards facilitating graduate employment and is a relevant programme for human growth, development and sustainability of the Nigerian economy. Otamiri (2008) views Business Education as a fusion of pedagogical and entrepreneurial preparation related to the acquisition of knowledge and understanding of practical skills and attitudes for occupations in various sectors of the economy and social life. It is an education designed to develop occupational skills and gives individuals the skills to “live, learn and work as a productive citizen in a global society. Furthermore, for business education programme to inculcate entrepreneurial competencies, the quality of instruction has to be geared towards inculcating a culture of skill acquisition for self employment and to assume the risk to establish a business. The programme of instruction should be geared towards enabling students to acquire entrepreneurial skills and competencies that they can use in establishing, managing and sustaining their business enterprises.

The business educator plays an important role in the whole learning process to teach entrepreneurship competences to students by guiding them through the steps of setting up and managing a business, they provide feedback or help the students by discussing available options to achieve results. During the whole learning path, important economic and financial concepts are experienced and students apply their skills in numeracy and math in many different ways. Secondly, business people are engaged as volunteer mentors or advisors. They can be business owners/entrepreneurs or employees from companies. Their involvement is a key for the success of the learning experience. They visit the school and also communicate with the students online. They are a source of practical advice and experience as well as encouragement and motivation throughout the learning exercise. The business education programme therefore, should be well packaged with relevant course content, guided by achievable objectives and enriched with a suitable methodology that enhances the teaching and learning process of entrepreneurial competencies. These include the use of ICT tools for delivery entrepreneurial competencies in business education programme. The section that follows illustrates this in detail.
Use of ICT Tools for Delivery Entrepreneurial Competencies in Business Education Programme

Information and Communication Technology (ICT) makes it possible to test different decision making scenarios and can be used as a tool for creating and developing entrepreneurial competencies. It offers learning opportunities, business planning solutions, database tools as well as business training opportunities with the help of business plan simulators. Entrepreneurial competencies in business education programme can be enhanced by introducing specific ICT tools in teaching and learning. Modern ICT could be used as a means to establish connections between the business and higher education sector. It represents an important opportunity to provide young people with business competencies and entrepreneurship education (Hynes & Richardson, 2007). Business educators should therefore be aware of teaching methods which might be upgraded to meet the market demands and to provide the students with the set of competencies. Galloway, Anderson, Brown, and Whittam, (2005) stated that the use of ICT tools seems to be the best solution. Entrepreneurship education according to DeFaeite, Henry, Johnston, and Van Der Sijde, (2003) involve learning of a variety of business related competencies such as improvements of decision-making skills or skills to access information and using different ICT tools for creating a better working space.

Three major ways of using ICT for teaching and learning was identified by Ijagun (2014) which include Computer assisted learning, Computer assisted research and Distance learning. The author stated that computer assisted learning is the interaction between a student and a computer system design to help the student learn. Computer assisted research implies the use of ICT as an aid to doing library and empirical research. This is enhanced through the growth of World Wide Web which has created visual library that can only be accessed by the technologically literate. These three ways of learning as identified by Ijagun (2014) if effectively used by business educators will go a long way to facilitate the use of ICT tools for delivery entrepreneurial competencies in business education programme. ICT enabled teaching and online tools in terms of content, mentoring, and more efficient and cost-effective training or delivery. For example, students learn how to use technologies for business purposes from basic skills. This skills include to write a document on word or to draft a budget on excel to more advanced things for instance to design communication materials or to use the digital media for marketing purposes.

Furthermore, ICT is used worldwide to increase access to, and improve the relevance and quality of education. The unprecedented speed and general availability of information due to ICT extends educational opportunities to marginalized and vulnerable groups. ICT gives students and teachers new tools with which to learn and teach. These tools can be applied to entrepreneurial competencies in business education. Geographical
distance is no longer an obstacle to obtaining an education. It is no longer necessary for teachers and students to be in the same space, due to innovations of technologies such as teleconferencing and distance learning, which according to Enang (2015) allow for synchronous learning. If given access and appropriate training in ICT, the Internet can also provide these groups with an abundance of online learning materials, covering a wide range of entrepreneurial competencies that are up-to-date and produced by cutting-edge technologies. Thus, teachers and learners are no longer solely dependent on physical media such as printed textbooks which are often times outdated especially in the developing world. With today’s technology, the business educator even has the ability to access experts, professionals, and leaders in the field of entrepreneurial competencies around the world at any given time.

New technology based models for teaching and learning of entrepreneurial competencies should be designed for improving students’ educational outcomes. Some researchers like Mahmood and Hussein (2012) stated that Computer Assisted Instructions (CAI) systems should be used to impart knowledge in a self directed and constructive way. The study by Sánchez and Alemán (2011) has indicated that ICT assists in transforming a teaching environment into a learner-centered one and enables learners and instructors to be equipped with more educational affordances and possibilities (Shan, 2013). Researchers such as Shahadat et al. (2012) have also found that computers provide enhanced teaching and learning environments by providing opportunities to practice and to analyze, offering better access to relevant articles and teaching and learning materials. Students or learners are authorized by teachers to make their own decisions and plans because of an active involvement in the learning and teaching processes through the use of ICT in the classrooms (Lu, Hou and Huang 2010).

The UNESCO report of 2008 on the UN decade of education for sustainable development indicates that, ICTs promote student-centred learning and appear to be speeding the rate of educational change in all learning institutions. Saddam, Gellie, and Shelanee (2013) concludes that, students’ perceptions change when they are continually exposed to the capabilities of ICT, and the more they become positive towards ICT use, the more likely that students can develop better skills on ICT use and be encouraged to engage themselves in deeper forms of learning (Mukelabai, 2011). Institutions of learning all over the world are witnessing a paradigm shift brought about by the use of ICT and have seen ICT as an indispensable tool in the teaching and learning process (Sanga, Magesa, Chigonikaya, & Kayunze 2013; Komba, 2009; Sedoyeka & Gafufen, 2013; Josephat Oroma, Kiden, Marianne, Saitoti, 2013; Swarts & Washira, 2010; and Tedre, Bangu, and Nyagava, 2009).

In order to cater for the needs of the 21st century, the business educator should learn to adapt with the changes particularly in the new trends of teaching and learning.
Findings from Maurice, Charles, and Ofori-Darko,(2012) shows that ICTs facilitate students to search for information and other instructional materials, it also enables communication among students themselves. Maurice and his colleagues further stress that; the use of ICT in educational delivery and in any other field of endeavor cannot be over emphasized in this era of science and technology. By using ICT, students are now more frequently engaged in the meaningful use of computers (Sánchez and Alemán 2011). Students can develop new understanding in their areas of learning (Chai, Koh and Tsai 2010), their creativity can be optimized and may discover new multimedia tools and create some learning materials in the styles readily available to them through games, CDs, and television (Gee, 2011). The studies by Steel (2009) and Mwalongo, (2011) have indicated that ICT use for teaching can motivate teachers and learners/students and help them to clarify difficult concepts, save time, make learners active, and simplify teachers’ work. Therefore, the role of ICT as a tool for delivering entrepreneurial competences in business education programme cannot be viewed in isolation.

Conclusions

This study addressed the use of Information and Communication Technology (ICT) as a tool for delivering entrepreneurial competencies in Business Education Programme in Nigeria. Specifically, the study highlighted the concept of entrepreneurship education, types of entrepreneurial education which include Intrapreneurship, social entrepreneurship, eco-entrepreneurship, digital entrepreneurship, inclusive entrepreneurship and female entrepreneurship. An entrepreneurial competency framework made of knowledge, skills and attitude was developed. The study further developed some entrepreneurial competencies for business education programme made up of conceptual and relationship competencies, business and management competencies, entrepreneurial competencies and human relations competencies. The study further highlighted business education programme and the use of ICT tools for delivering entrepreneurial competencies in business education programme which include Computer assisted learning, Computer assisted research, Distance learning that could be used to increase access and improve the relevance and quality of education. The use of ICT in delivering entrepreneurial competences can motivate business education teachers and learners and this can help them to clarify difficult concepts, save time, make learners active, and simplify the teachers’ work. Therefore, the role of ICT as a tool for delivery entrepreneurial competences in business education programme cannot be viewed in isolation.

Recommendations

The following recommendations are suggested:
1. Government should set machinery in motion to provide an enabling environment for entrepreneurship education to strive in all institutions of learning especially in business education programme.

2. The National Universities Commission should ensure that entrepreneurship education is made compulsory for all undergraduates irrespective of discipline.

3. Entrepreneurship teaching has to go beyond the traditional teachings in schools. This implies the use of ICT as a tool for delivering entrepreneurial competencies.

4. The business education teacher should be vast in the use of ICT as a tool for delivery entrepreneurial competences in business education programme.

5. Professional development on the use of ICT tools for teaching and learning by the business education teacher is high recommended.

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