

CORRELATES OF INFORMATION & COMMUNICATION TECHNOLOGY, ENTREPRENEURIAL EDUCATION AND ECONOMIC SELF-RELIANCE INITIATIVE OF UNIVERSITY STUDENTS

By

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Abstract

The study examines the relationship of information and communication technology, entrepreneurial education and economic self-reliance initiative of university undergraduates in Ogun State. Three hypotheses were formulated for the survey research design study. A total of 2400 participants constitute the sample for the study. Three adapted and validated scales were used as instrument to measure the extent of the relationship while data collected were analysed with Pearson product moment correlation. The results shows that there is significant relationship between ICT and entrepreneurial education ($r=0.76$; $p<0.05$), there exist significant relationship between entrepreneurial education and economic self-reliance initiative of the university undergraduates ($r=0.69$; $p<0.05$) and there is significant relationship between ICT and economic self-reliance initiative of the university undergraduates ($r=0.85$; $p<0.05$). Based on the findings it is recommended that the use of ICT platforms (social media) should be further encouraged to provide current information on entrepreneurial education in order to promote the spirit of self-reliant among university students.

Keywords: ICT; Entrepreneurial Education; Youths Empowerment; Technopreneurs; Nigeria.

Introduction

Entrepreneurship is not an art that can be cultivated overnight, but requires a lot of training and exposure. It is a wise vocational teacher who helps the youths understand their options and encourage them to constantly seek for opportunities. Situation of life through entrepreneurial study can make students launch businesses of their own and thereby reshaping the global economy through self-employment. The industrially developed countries like USA, Japan and Germany bear the evidence that a thriving economy is an effect of the youths' entrepreneurial contribution (Nwangwu, 2007). Ajao (2004) stated that entrepreneurs are not born rather they become through the experiences of their lives. Meredith (1983) describes an entrepreneur as a person or persons who possesses ability to recognize and evaluate business opportunities, assemble the necessary resources to take advantage of them and take appropriate action to ensure success. He is a person that searches for change, responds to change, and exploits change by converting change into business opportunity.

Entrepreneurship education is a particular type of education programme geared towards producing competent and effective business oriented manpower at all level of economic activities. According to

Omolayo (2006), entrepreneurial education is the study in which students are provided with basic knowledge and ability to identify and pursue opportunities, operating with uncertainty, taking risk, being innovative, creative and critical thinking, acting as change agent in the society and business creation. With effective entrepreneurship education the youths can be equipped with skills and knowledge needed to start and grow a new business for the purpose of economic empowerment. University undergraduates who receive entrepreneurial education are more likely to start a business while in school or immediately they finish training without looking for the seemingly scarce white collar jobs. Another area of entrepreneurship which students can venture into is technopreneurship which is in the domain of technology. Technopreneurs are entrepreneurs who begin and manage their own technological business such as providing information technology services. According to Rioseco (2019) technopreneurs defies the present economic order by creating services that use technological solution to change the conventional method of doing things. Interestingly, majority of the youths possess information technology devices which can be used to provide tech-services for various entrepreneurs who wish to package their services in form of computer graphics advertisement, fliers and product packaging.

According to Arogundade (2011) the entrepreneurship education curriculum of Nigerian tertiary institutions entails philosophy of self-reliance that will promote pride in self-discipline, encouraging people to take part actively and freely in discussions and decisions affecting their general welfare, promoting new sets of attitudes and entrepreneurship skills. For any country to keep pace with vocational and technological growth the entrepreneurship education of its youths has to be robust, creative, practical and collaborative. This is because the youths and graduates from tertiary institutions are expected to be well equipped with the entrepreneurial skills, knowledge and attitude with which to make use of the economic opportunities that are abound in their environment. Arogundade (2011) noted that it is an unfortunate situation that the entrepreneurial education of the formal schooling system has not yielded significant impact on the entrepreneurial initiative, attitude and knowledge of the students. Gorman (2018) added that entrepreneurship education which was intended to be used in salvaging the youths unemployment situation was only integrated in the school curriculum without considering ICT- based social media platforms where students are more familiar with.

Information and communication technology (ICT) is an instrument for achieving socio, economic, scientific and technological development of any nation especially in 21st century. Information can be seen as ideas conceived in human minds while communication is the transfer of the idea from the source to the destination. ICT use is not only emphasized in cooperate business and industries, but it's an essential part of youths empowerment strategies (Uhibbukafillah, 2017). The National Policy on Education (2013), highlights that in addition to the goals listed in Section 5, paragraph 81(a-g); paragraph 86 (d) states that "university education shall make optimum contribution to national development by making entrepreneurial skills acquisition a requirement for all Nigerian Universities". This statement means that there is need to give training that impact the necessary skills for producing youths who shall be enterprising and self-reliant. In order to achieve sustainable entrepreneurial education it is very pertinent to keep people abreast with the latest discoveries and innovations in which information and communication technology is key.

The support of information and communication technology utilization as a determinant of youths empowerment has attracted significant attention among researchers. Maximum utilization of new ICT by the developing countries should be encouraged in order to maintain a sustainable national development (Adetola, 2006). New information technologies are potential platforms to support education across the curriculum and create avenues for effective communication between teachers and students in a way that was considered impossible before. Certainly, identifying needs and proposing solutions without information is not possible, thus information and knowledge communication are the necessities of any entrepreneurial activity (Prahani & Supeno, 2012). As technology affects many issues, entrepreneurs have also benefited significantly from the enormous

advantages offered by these media, as the emerging 21st century technologies provide faster access and higher quality of information for prospective entrepreneurs.

For instance, email is a common application of new information technologies for individuals and organizations to interact with each other in a cost effective manner. Another important application of new information technology is the World Wide Web that enables people to access information (Wena, 2009). The use of ICT as a medium of learning entrepreneurial skills can be in the form of Power Point slide files, images, animations and video while students might also be helped by obtaining free online resources for entrepreneurial education. ICT has the potential to penetrate underserved areas, facilitate the development of local capacity and provide faster transition of information about technical assistance.

In the present digital age there are tools that enhance information search and retrieval by prospective entrepreneurs. Ahadiat (2008) viewed that ICT provides a whole lot of information that are needed by the students in acquiring entrepreneurial knowledge and skills. Parts of the technologies that provides entrepreneurial information for the students on empowerment are youtube videos and training packages for self-learning. Other emerging learning technologies that is used to provide entrepreneurial knowledge for students are broadcast satellite television, video conferencing, narrowcast television, hypermedia, interactive television instruction, videotaped instruction, video discs, interactive online radio, portable FM radio, online television and social media (Teddy, 2020). However, the role of information technology in this context is very crucial in the sense that it enables prospective youth entrepreneurs gain access to relevant information needed for enlightenment in their various fields of entrepreneurial interests. With the use of various digital information dissemination devices the youth would develop entrepreneurial attitude and competencies required to function effectively in their environment (Venkatesh, Shaw, Sykes, Wamba, Macharia, 2017). It should be noted that while some studies found significant relationship between ICT use, entrepreneurial education and youths empowerment others do not find any significant relationship among the variables. For instance, the use of social media has provided avenue for the youths to be trained in e-commerce, digital marketing, streaming advertisement, information marketing and other technical/vocational skills whether physical appointment or online platform. Youths could enrol for entrepreneurial training on Facebook, WhatsApp, Telegram, Radio, Television and other live-stream remote-driven platforms (Tess, 2013; Mollan and Drone, 2019; Teddy, 2020). Students could learn through social media the basic skills needed to survive in the 21st century society such as creative thinking, critical thinking, problem solving, collaborative and uses of media.

In fact, students who have acquired some vocational skills and already into business do advertise their products on social media such as whatsapp, facebook, blogs, youtube, instagram, twitter where interested buyers link up with the seller and transaction will be completed online with the assistance of delivery agents. Findings of Venkateshet et al. (2017) revealed significant influence of information and communication technology on entrepreneurship skills. Rioseco (2019) surveyed 534 students and found that ICT tools enhanced learning and job performance. In another study, findings of Jones and Allein (2020) revealed significant relationship between entrepreneurial education and student attitude towards economic self-reliance. Bae, Qian, Miao and Fiet (2014) in a study found out that entrepreneurial education significantly increased entrepreneurial intention of university students. A study by Reyal and Hundel (2021) revealed significant relationship between ICT and business orientation among students in tertiary institutions. Also, Wu, Pan and Yuan (2020) in a study found that ICT use significantly promotes efficiency in trainee entrepreneurs.

On the other hand, in a study by Eddie and Captain (2018) it was found that there is no significant relationship between ICT utilization and students acquisition of entrepreneurial education. Castells (2019) reported no significant relationship between students exposure to entrepreneurial education and economic empowerment. Also, findings of Johnson and Lionel (2021) revealed no significant relationship between ICT and self-reliant information among university students. The inconsistencies in the findings of scholars make this study significant, especially in Nigerian context where the rate

of youth's unemployment is very alarming due to lack of adequate information on entrepreneurial education.

This study is situated on social constructivism theory of learning propounded by Lev Vygotsky in 1968 which states that language and culture are the frameworks through which human being experience, communicate and understand reality. The use of information and communication technology (ICT) in learning supports the theory of social constructivism i.e. students gain experience in learning together with other students or through interaction with teachers with ICT-based communication media. According to Akpan, Igwe, Mpamah & Okoro (2020) social constructivists see knowledge as what students do in collaboration with other students, teachers and peers. Social constructivism is a variety of cognitive constructivism that emphasizes the collaborative nature of learning under the guidance of a facilitator or in collaboration with other students. Kapur (2018) observed that social construction of knowledge takes place in various ways and at different locations. It could be achieved through group discussion, teamwork or any instructional interaction in an educational or training institution, social media forum, religious and market places. Kelly (2012) suggests that social constructivism could be applied through ICT-based platforms for collaborative and entrepreneurial skills development.

Statement of the problem

Most of the researches in entrepreneurship focused on general principles, theoretical mechanisms of starting up business, without addressing the impact of information and communication technology on entrepreneurship education vis-a-vis economic empowerment of the youths. Therefore, this study examines the relationship of ICT, entrepreneurial education and economic self-reliance initiative of university undergraduates in Ogun State.

Objective of the study

The main objective of this study is to examine the relationship between ICT use, entrepreneurial education and economic self-reliance initiative of University Undergraduates in Ogun State, Nigeria.

Hypotheses

H01: There is no significant relationship between ICT and entrepreneurial education of University undergraduates in Ogun State.

H02: There is no significant relationship between entrepreneurial education and economic self-reliance initiative of University undergraduates in Ogun State.

H03: There is no significant relationship between ICT and economic self-reliance initiative of University undergraduates in Ogun State.

Methodology

Survey research design was adopted for this study with the population that consisted of all final year undergraduates of public universities in Ogun State. The sample size for the study was 2400 respondents randomly selected in the institutions. An instrument named information technology, entrepreneurial education and economic self-reliance initiative scale (ITEDSRS) was used by the researchers to collect data. The questionnaire has four sections: A, B, C, D & E. Section A seeks students bio-data such as age, sex, level, institutions etc. Section B contains 10 items adapted from Wang (2008)) to measure the relationship between ICT use and entrepreneurship education. It's a 4-point likert scale with scoring from Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). Content validity of the instrument was assessed by experts in Business Education, test retest was conducted and the Cronbach Alpha reliability yielded correlation coefficient of 0.78. Section C contains 10 items designed to measure the construct on entrepreneurial education and economic self-reliance initiative of university undergraduates. This was adapted from

entrepreneurship attitude of university students by Hooshangi and Loewenstein (2018). It's a 4-point likert scale with scoring from Strongly Agree (SA) to Strongly Disagree (SD). Content validity of the instrument was assessed by experts in Educational Evaluation. To test for reliability a test-retest was conducted and this yielded correlation coefficient of 0.72. Section D contains 10 items designed to measure the construct on ICT relationship with the undergraduates economic self-reliance initiative.

This was adapted from entrepreneurship attitude of students by Sergeant and MacDonald (2017). It's a 4-point likert scale with scoring from Strongly Agree (SA) to Strongly Disagree (SD). Content validity of the instrument was assessed by experts in Business Education, pilot test was done and Cronbach Alpha shows a reliability coefficient of 0.81. The instruments were administered through the help of research assistants which was monitored by the researchers. After completion the statistical method used to analyse the formulated hypotheses was Pearson Product Moment Correlation (PPMC) at 0.05 level of significance.

Result of the study

H01: H01: There is no significant relationship between ICT and entrepreneurial education of University undergraduates in Ogun State.

Table 1: Relationship between ICT and students entrepreneurial education

Variables	N	Mea n	SD	df	r	p
ICT	2400	28.30	5.01	2398	0.76	0.001
Entrepreneurial Education	2400	27.06	8.98			

*Correlation is significant at $P = 0.05$

Table 1 above revealed significant relationship between ICT and entrepreneurial education ($r=0.76$; $p<0.05$) and degree of freedom 2398. Therefore, the postulated null hypothesis is rejected, meaning that entrepreneurial education is significantly related to ICT uses.

H02: There is no significant relationship between entrepreneurial education and economic self-reliance initiative of University undergraduates in Ogun State.

Table 2: Relationship between entrepreneurial education and students economic self- reliance initiative.

Variables	N	Mea n	SD	df	r	p
Entrepreneurial Education	2400	34.04	4.18	2398	0.69	0.003
Economic Self-reliance Initiative	2400	35.16	7.25			

*Correlation is significant at $P = 0.05$

Table 2 above revealed significant relationship between entrepreneurial education and economic self-reliance initiative ($r=0.69$; $p<0.05$) and degree of freedom 2398. Therefore, the postulated null

hypothesis is rejected, meaning that entrepreneurial education is significantly related to undergraduates economic self-reliance initiative.

H03: There is no significant relationship between ICT and economic self-reliance initiative of University undergraduates in Ogun State.

Table 3: Relationship between ICT use and students economic self-reliance initiative

Variables	N	Mean	SD	df	r	p
ICT	2400	12.29	2.06	2398	0.85	0.000
Economic Self-reliance Initiative	2400	11.27	6.10			

*Correlation is significant at $P = 0.05$

Table 3 above revealed significant relationship between ICT and students economic self-reliance initiative ($r=0.85$; $p<0.05$) and degree of freedom 2398. Therefore, the postulated null hypothesis is rejected, meaning that ICT is significantly related to students economic self-reliance initiative.

Discussion of findings

Results from hypothesis one revealed that there is significant relationship between ICT and entrepreneurial education among University undergraduates in Ogun State. This findings supported Venkateshet et al. (2017) that information and communication technology has significant influence on students entrepreneurship skills. Rioseco (2019) found that ICT tools enhanced learning and job performance of students. Also, results in hypothesis two show significant relationship between entrepreneurial education and economic self-reliance initiative of University undergraduates. This outcome corroborates the findings of Jones and Allein (2020) which revealed significant relationship between entrepreneurial education and student attitude towards self-reliant. Bae, Qian, Miao and Fiet (2014) found that entrepreneurial education significantly increased entrepreneurial intention of university students. Results in hypothesis three revealed significant relationship between ICT and economic self-reliance initiative of University undergraduates. This findings also corroborates the findings of Reyat and Hundel (2021) which revealed significant relationship between ICT and business orientation among students in tertiary institutions. Wu, Pan and Yuan (2020) found that ICT use significantly promotes efficiency of trainee entrepreneurs.

Conclusion

Findings of this study revealed significant relationship between ICT and entrepreneurial education among University undergraduates, significant relationship between entrepreneurial education and economic self-reliance initiative of University undergraduates and significant relationship between ICT and economic self-reliance initiative of University undergraduates. Therefore, it's concluded that the emerging information technologies can play significant roles in providing entrepreneurial education in order to stem the tides of youths unemployment.

Recommendations

1. In view of the findings of this study, aside the conventional classrooms where entrepreneurial practical skills are learnt physically, university students should be more encouraged to acquire entrepreneurial education virtually through the social media.

2. Students can also be trained as technopreneurs who provide technical assistance to commodity entrepreneurs who rely on technology to drive their businesses.
3. Entrepreneurship teachers should be ready to use ICT for creative, innovative and productive learning processes so that their students are interested and can apply their ideas directly into the learning process.
4. Teachers should show readiness in the utilization of ICT to simulate entrepreneurial skills for the students so that learning would be permanent.
5. Schools should develop ICT infrastructures for the benefit of improving entrepreneurial consciousness and skills of both teachers and students.

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