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Needs for Information and Communication Technology (ICT) Skills by Colleges of Education Students for Effective Entrepreneurship Practice in an Era of Economic Uncertainties in Nigeria

Okegbemiro, Jamiu Okesola; Alao, Lateeafah Abiola; & Mustapha Afusat Aderonke
School of Secondary Education (Business), Federal College of Education (Technical) GOMBE, Gombe State.
Corresponding Author: okegbemiro@gmail.com
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Abstract

A large proportion of young graduates in most African countries exist without clear job prospects. Self-employment may be one potential answer to this issue. On the other side, such an approach necessitates the production of entrepreneurship skills. ICT should be seen as an ideal tool to accelerate the development process of Nigeria's entrepreneurship programs. The educational programmes at all levels should be made relevant to provide the graduates with the needed entrepreneurship skill that should give adequate attention to entrepreneurial development in the country. To be able to teach entrepreneurship education, the teachers themselves, especially in business education programme at the colleges of education should be well verse in entrepreneurial skills and entrepreneurial orientation necessary to develop amongst business education students. Skills are the economic tools with which entrepreneurs acquire and solve societal problems. Graduate of business education need different skills such as human relation skills, innovative skills and problem-solving skills among others to run any kind of business enterprise successfully. With the alarming rate of unemployment in the country now, it is expedient for business education students to acquire ICT skills that will sufficiently make them effective and efficient in practicing entrepreneurship to make them marketable, self-sufficient and self-reliant rather than jostling for white collar job that is not forthcoming. It is obvious that graduates are more than job created in the country. Cronbach Alpha

method was used to determine the internal consistency of the instrument. The questionnaire was retrieved and analysed using Statistical Package for Social Sciences (SPSS) to determine the reliability coefficient. The results gave reliability co-efficient of 0.87. The findings revealed that out of the thirteen on-line skills identified, eleven were possessed by vocational and technical education students for self-sustenance. It was discovered also that out of the 11 items, 9 of the items were required by vocational and technical The researchers recommended, among others that the ICT skills identified in this research should be included in the curriculum of Business education students so as to make them employable or self-employed upon graduation; and all hindrances to acquiring ICT skills as identify in the study should be address by stakeholders in education to improve student's skills in ICT.

Key Words: Needs, Uncertainties, Information and Communication Technology, Skills, Entrepreneurship, Office Technology and Management Education, Colleges of Education

Introduction

There are three different options in the field of business education as practiced in Nigeria. They are accounting education, marketing/distributive education and Office Technology and Management Education (OTM) formerly known as secretarial studies. Generally, the ultimate aim of business education, as an integral part of technical and vocational education and training programme (TVET) is to provide graduates with the appropriate skills that will enable them to be versatile in their business endeavor to meet the economic needs through engagement in the world of work as employees as well as self-employed. Thus, the national policy on education in Famiwole and Akindula (2016) defined vocational education as a comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technology and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life.

The technological development in information communication technology has increased the array of opportunities available for people who possess adequate mastery of the knowledge of keyboarding and other ICT skills. By this, keyboarding skills have become one of the important skills required in the world of work as the use of computer has tended to dominate today's business environments. In the same vein, perspective OTM education graduates are expected to teach all the components of business studies at the nation's junior and senior secondary school levels and as well teach some trades or entrepreneurship subjects like stenography and data processing, keyboarding, office management, small scale business and entrepreneurship education are expected to prepare OTM graduates for self-employment and as knowledge workers in public and private organisations. However, Cunha

(2017) observed that most of the facilities required for the training of office manager are lacking and sometimes inadequate in most of the institutions in Nigeria. He further remarked that principles of vocational education include the followings among others:

- Vocational education will be efficient in proportion as the environment in which the leaner is trained as a replica of the environment in which he must subsequently work.
- Effective vocational training can only be given where the training jobs are carried out in the same way, with the same operations, the same tools and the same machines as in the occupation itself.
- Vocational education must recognize conditions as they are and must train individuals to meet the demands of the market.
- Effective vocational education can only be given to the selected group of individuals who need it, want it, and are able to profit by it.

These principles underscore the need to provide necessary equipment, exact teaching environment, consideration of employers' skills need and students' interest or attitudes towards the programme. In view of the above, most business education scholars, such as (Ademiluyi (2017) have expressly reported that business education programme as a vocational endeavor is cost effective if competent OTM graduates are to be produced for the private, industrial and educational sectors of the nation. It was reported by most of these scholars that the mandate of business education curriculum is the production of graduates for self-employment, and careers in other occupations. Such graduates are needed in the industry, but that they lack ICT skills and competencies when employed by local and multinational companies is a serious problem. Justifying this, the College of Education Academic Staff Union (COEASU) recently embarked on strike on the need to improve the funding of education in order to reduce the production of half-baked graduates.

Sharifi (2020) defined ICT as those technologies that are used for accessing, promoting globalization and knowledge, data and skills from which education can benefit substantially. These data and skills include the ability to become lifelong learners within a context of collaborative inquiry and the ability to learn from experts and peers in a connected global community (Martyn, 2018). The premise that ICT is essential for bringing changes to classroom teaching and learning in educational systems around the world are under increasing pressure to the society and the world at large. In fact, the acquisition of skills will enable the students to function effectively in an environment of strong market forces and complex technological advancement. Unemployment exists partly because most of the products of educational system look for jobs that do not exist. According to, most business education graduates lack the ability to succeed in private enterprise. There is therefore the need to identify those skills, competencies, attributes and attitudes which may enhance the promotion of private enterprise practice (Ademiluyi (2017).

Training is one of the management most vital tools for achieving organizational objectives. Traditionally, training is distinguished from education as a field concerned with teaching

particular skills for a specific task while education involves the development of the whole person-socially, intellectually, and physically. However, the word training is gradually acquiring a much broader meaning and refers to activities ranging from the acquisition of simple motor skills to the development and change of complex socio-emotional attitudes. ICT skills are those activities that will enable the business education students to manage their own enterprise with the aid of modern technology. Such skills include computer appreciation skills, word processing skills, use of internet skills and data processing skills (Azuka, 2016).

The possession of good human relation skills is one of the success factors in entrepreneurship. The entrepreneur is the human factor that organizes other factors of production such as land, labour, capital and machinery to achieve set business goals. No matter how hard an individual may work or how many brilliant ideas he may display, if he cannot connect with other people around, his professional life is bound to suffer. This emphasizes the need to acquire human relation skills for entrepreneurial development (Sharifi, 2020; Martyn, 2018). Innovation on the other hand, is the successful implementation of creative ideas within an organization. Innovative skills for entrepreneurial development include introduction of new products, new methods of production, opening new markets, exploring new products and new methods of carrying out new types of organization (Ademiluyi, 2017).

Entrepreneurship education in recent times has continued to feature as a captivating theme in local conferences, workshops and international conferences because of its potency as tool for reducing unemployment and other social-economic challenges inhibiting sustainable development in all parts of the globe, of which Nigeria is not exempted (Azuka, 2016). Corroborating this view, Matryn (2018) opined that the role of entrepreneurship in the economic development of any nation is so crucial that it cannot be over-emphasized. They further pointed out that most economies in African countries are characterized by a growing population and a general decrease in formal employment.

According to Anyakoha (2019), entrepreneurship is the act of being an entrepreneur which involves the process of generating ideas and venturing into business risks created by dynamic environment and making the best of opportunities for profit purposes. The increasing importance of entrepreneurship education and its ability to contribute to economic growth, job and wealth creation and poverty reduction made it a national policy issue in Nigeria, and inspired its integration into higher education curricula generally and Colleges of Education (COEs) in particular. The roles in business may include as an employee, employer, entrepreneur or business educator in the field of business (Matryn, 2018; & Ademiluyi, 2017). The proliferation of educational learning gadgets (with a wide range of web resources such as blogs, social media, YouTube, learning management system, video streaming and so on) in teaching and learning in the light of technological and knowledge driven generation. However, the question of efficacy of information and communication technology on entrepreneurship practice has raised a lot of concern to several past researchers, thus prompting the writers to writing on the Information and Communication (ICT) needed by

Colleges of Education Students for effective entrepreneurial practice in an era of economic uncertainties in Nigeria.

Statement of the Problem

Entrepreneurship education has been identified by scholars as the cord between poverty and national development. Consequently, developing a functional Entrepreneurship curriculum for tertiary institutions is needed. There are various ICT skills needed by business education students for effective entrepreneurship practice. The computer is one of the most visible of the new technologies. Modern business education curriculum provides the introduction to ICT in the form of ICT literacy, Application of ICT, Infusing of ICT skills and ICT specialization. These reforms have added good quality to business curriculum content which is geared towards meeting the demands of the society. In the area of instruction, new technologies which revolve round the use of Internet and resources have emerged that are aimed at improving productivity.

Due to the new trend in technological advancement coupled with the alarming rate of unemployment in the country now, it is expedient for college of education students to acquire ICT skills that will sufficiently make them effective and efficient in practicing entrepreneurship to make them marketable, self-sufficient and self-reliant rather than jostling for white collar job that is not forthcoming. The questions agitating the researchers' mind now is: what are the ICT skills needed by students in COE for effective entrepreneurship practice in colleges of education in Nigeria? How many of these skills have they acquired? How often do they utilize these skills for effective entrepreneurship practice?

Purpose of the Study

The main purpose of this study is to ascertain Information and Communication Technology (ICT) skills needed by students in Colleges of education for effective entrepreneurship practice in an era of economic uncertainties. Specifically, the study seeks to determine:

1. Managerial skills needed by Colleges Education students in Colleges of Education for effective entrepreneurship practice in an era of economic uncertainties in Nigeria;
2. Information Communication and Technological (ICT) skills needed by Business Education students in Colleges of Education for effective entrepreneurship practice in an era of economic uncertainties in Nigeria;
3. Communication skills needed by Colleges of Education students in Colleges of Education for effective entrepreneurship practice in an era of economic uncertainties in Nigeria;

Research Questions

The following research questions are designed to guide the study:

1. What are the managerial skills needed by students in Colleges of Education for effective entrepreneurship practice in an era of economic uncertainties in Nigeria ?

2. What are the technological skills (such as Computer Appreciation, Word Processing, Internet and Data Processing) needed by Colleges of Education students for effective entrepreneurship practice in an era of economic uncertainties in Nigeria?
3. What are the communication skills needed by Colleges of Education students for effective entrepreneurship practice in an era of economic uncertainties in Nigeria s?

Hypotheses for the Study

The three null hypotheses that were tested at 0.05 level of significance included:

H_1: There is no significant difference between the mean responses of both male and female students in Colleges of Education regarding the Use of managerial skills needed for effective entrepreneurial practice in an era of economic uncertainties in Nigeria.

H_2: There is no significant difference between the mean responses of both male and female students in Colleges of Education regarding technological (Computer Appreciation, Word Processing, Internet and Data Processing) skills needed for effective entrepreneurial practice in an era of economic uncertainties in Nigeria.

H_3: There is no significant difference between the mean responses of both male and female students in Colleges of Education regarding communication skills needed for effective entrepreneurial practice in an era of economic uncertainties in Nigeria.

Concept of Entrepreneurship and Skill Acquisition Theory

The concept, "Entrepreneurship" has been defined by academics according to their orientation and understanding of the subject matter. Folahan and Omoriyi (2016) define entrepreneurship skills as simply business skills, which an individual acquires to enable him function effectively in the turbulent business environment as an entrepreneur or self-employed. Jain (2013) defines entrepreneurship as behaviour, attitude and an approach to the way people create new values in the market, technology consumption, habits and build sustainable institutions and organizations. In the same vein, Anyakoha (2019) defined an entrepreneur as a person who chooses or assumes risks, identifies business opportunity, gathers resources, initiates actions and establishes an organization or enterprise to meet such market opportunities.

Entrepreneurial skills are those activity skills that will enable an entrepreneur to manage his own enterprise. In the context of this study, the entrepreneurial skills are the knowledge, attitudes and behaviours that will enable an entrepreneur to identify business opportunities, stimulate creativity and transform ideas into practical and economic activities for sustainable livelihood. These skills are needed to perform certain activities such as managerial, accounting, marketing, human relations, technical and information and communication technology skills to run an enterprise successfully. Anyakoha (2019) stated that accounting and financial skills are needed to be able to interpret financial statements, knowledge of costing and ability to understand gross and net profit of any business enterprise. The knowledge skill will enable the entrepreneur (graduate) to grasp the understanding of business management while the technical skills will enable him to run the day-to-day activity of this

enterprise. Therefore, for the graduates to be able to achieve self-employment status requires entrepreneurial skills which will enable him to establish small scale business for self-sustainability.

This study hinged on the theory of "Skill Acquisition: as stated by Hubert and Stuart (1986) propounded the theory of skill acquisition which states that formal system of deduction is a gradual process that involves being embodied in different ways and developing skills that would make it possible for people to deal with the world. The main idea behind Hubert and Stuart's skill development theories is the distinction they made between "knowing that" and "knowing how." The knowing-how and knowing-that is considered one concept, which is acquired through a formal system of deduction.

Concept of Uncertainty

Generalized definitions of uncertainty mention words like "not able to rely on", "not knowing", and "having doubt'. Walker, et al (2013) define uncertainty as a state of limited knowledge where it is impossible to exactly describe the existing state, a future outcome, or more than one possible outcome. It further adds "Uncertainty refers to epistemic situations involving imperfect or unknown information. It applies to predictions of future events, to physical measurements that are already made, or to the unknown. Uncertainty arises in partially observable and/or stochastic environments, as well as due to ignorance, indolence or both. It arises in any number of fields, including insurance, philosophy, physic, statistics, economics, finance, psychology, sociology, engineering, metrology, meteorology, ecology, and information science. In fact, a social oriented definition proposed by Walker et al. (2013) is "any departure from the unachievable ideal of complete determinism". In models, definition of uncertainty centres around, "how well the data or the model is an emulation of the real system. According to Cunha (2017), model uncertainty is due to lack of knowledge about the phenomenon of interest and, usually, is the largest source of inaccuracy in computational model response. However, Cuzzolin (2016) notes that "Uncertainty can be understood as lack of information about an issue of interest for a certain agent (e.g., a human decision maker or a machine), a condition of limited knowledge in which it is impossible to exactly describe the state of the world or its future trajectories". Uncertainty is frequently confused with other measures. Uncertainty is not error, accuracy, precision, verification or validation (Trucano et al. (2015), Cunha (2017), Sharifi et al. (2020)). Shepherd et al. (2013) discussed differences in error, precision, and uncertainty in relation to Overseer.

Uncertainty is an inherent part of knowledge (van der Bles et al., 2019). Cuzzolin (2016) noted that "Uncertainty is of paramount importance in artificial intelligence, applied science, and many other areas of human endeavour." Every decision, whether made by human or machine, has elements of uncertainty. Atlas (2019) noted that in general, people have a strong preference for certainty, tending to overweigh options that are certain, and to be risk-averse for gains but are loss-averse, and therefore tend to give losses more weight than gains. New Scientist in an article entitled "Worried about the future? The science behind coping with

uncertainty" reported on the effects of uncertainty on health. This article noted that not coping well with uncertainty can take a toll on our physical and mental health, and our ability to tolerate periods living in limbo has decreased over the past few decades, in part attributed to digital technology (i.e., the smart phone). The authors noted that people's way of perceiving uncertainty and the capacity for coping with uncertainty varies between individuals, and this affects the type of treatments that may be selected, that is, individuals' perception of uncertainty was influencing the decisions they made. Uncertainty can also be key components in other concepts. For example, in a webinar Spiegelhalter (Winton Centre, Cambridge University, 2019), based on the work of O'Neil, indicated that a focus should be on demonstrating trustworthiness rather than trust, and this requires science to inform not persuade, to be intellectual, open and confident about uncertainty, and to respect the audience. As an aside, trustworthiness is an increasingly key component of value chains ((Bammer (2013), Gluckman (2016), AtLas (2019), Kale et al. (2019), Sniazhko (2019)).

Van der Bles et al. (2019) noted that in an era of contested expertise, many shy away from openly communicating their uncertainty about what they know, fearful of their audience's reaction.' They proposed a range of methods that have decreasing precision in the way uncertainty was expressed, ranging from a full explicit probability distribution, pre-defined categorisation of uncertainty, a qualifying verbal statement, and informally mentioning the existence of uncertainty, to explicit denial that uncertainty exists. Uncertainty also applies to digital technologies. There is uncertainty associated with data collection (Sharifi et al., 2020). Frameworks for assessing uncertainty have been proposed for deep learning ensembles (Kachman et al. 2018; Lakshminarayanan et al., 2017; Sacha et al., 2016). This indicates that digital technologies and more data will not remove uncertainty; rather it may change the type uncertainties and provide additional techniques to identify (Solomatine and Shrestha, 2019) and visualise uncertainty (Sacha et al., 2016; Martin and Johnston, 2019).

Information and Communication Technology (ICT) skills for Entrepreneurship Practice

Information and communication technology (ICT) refers to the use of computers and other telecommunication equipment (Telephone lines and wireless signals) middle ware as well as software, storage and audio visual systems to create; access, store, transmit and manipulate information. Scott (2002) described ICT as encompassing a range of applications, communications and technologies which aid information retrieval, research, communication and administration, included among these devices and application are online data bases, library services, and online service and fax machines. ICT predominate all aspects of our lives: governments, business, markets, productivity, education, and the labour market. It therefore became imperative that we integrate to the fullest the new technologies in the implementation of the business education programme (Sacha et al., 2016; Martin and Johnston, 2019).

The National Policy on Education (2013) emphasised the need to empower youths with ICT skills to prepare them for competitiveness in the global environment, integrating ICT into the mainstream of education, and training, it became imperative to adopt these new technologies

in order to expand access to the education (by use of synchronous learning, access to the internet and world wide web). Ademiluyi (2017) also argued that ICTs are being used for strategic management, communication and collaboration, customers' access, managerial decision making, data management and knowledge management since it helps to provide an effective means of organizational productivity and service delivery. Furthermore**,** Ashrafi and Murtaza (2018) also agreed with the assertion that information and communication technologies (ICT) have positive effect on firm performance in terms of productivity, profitability, market value and market share. The research study of Johnson (2019) affirmed that buyers and sellers are able to share information and transfer goods across national borders with the use of ICT, which helps to increase access to global supply chains.

Research Methodology

The study adopts Survey Research design in order to seek respondents' opinions on the subject matter. The choice of the design was based on the opinion of Martyn (2018) who stated that descriptive survey research design is often used because of easy access to the required information and to understand the social phenomenon from the participants' perspective. The design is suitable for this study because it involves the use of structured questionnaire to gather the required data from respondents on the skills possessed by business education students in colleges of education for the management of small-scale businesses in Adamawa state.

Population of the Study

The population for the study comprises final year students from three (3) Colleges of Education in North East, Nigeria. The target population for the study was two hundred and seventy (270) students. The distribution of the population for the study is as presented in Table 1.0.

Table 1.0 Description and distribution for the Study

S/No.	Institutions	No, of Students	Male	Female
1.	Federal College of Educ. (Tech.), Gombe	93	35	58
2.	Federal College of Education (Tech.), Yobe	103	43	62
3.	Adamu Tafawa Balewa COE, Kangere, Bauchi	74	49	25
	Total	**270**	**127**	**143**

Source: Departmental Record Office of the Colleges 2023/2024 Academic Year

Sample and Sampling Technique

There was no sampling because the total population was used for this study. Therefore, there was no sampling. This is in compliance with the recommendation of Leedly (1980) in Ademiluyi and Okwuanaso (2013) that it is ideal to study the entire population whenever possible. Additionally, the choice of NCE III students was based on the following criteria: (i)

the students have been exposed to some pre-requisite of ICT skills (ii) the concept treated in this study is a core course of NCE III course designed for students in Vocational and Technical Education in Nigerian Colleges of Education (NCCE, 2012).

Instrument for Data Collection

The major instrument for data collection for this study was the questionnaire. According to Kerlinger and Howard (2008) questionnaire is the best instrument to gather data about the respondent's feelings, ideas, emotions and perceptions. The questionnaire was divided into four parts and each was assigned four response options of **Highly Possessed** (HP), **Moderately Possessed** (MP), **Slightly Possessed** (SP), and **Not Possessed** (NP) with values of 4, 3, 2, and 1 respectively.

Validation of the Instrument

The instrument for this study was validated by three (3) experts, two from the Department of Business and Entrepreneurship Education, Ahmadu Bello University (ABU), Zaria and a Senior Lecturer from the Department of Statistics, Abubakar Tafawa Balewa University (ATBU), Bauchi. Each expert checked the skill items for its clarity; relevance of items to ICT skills needed by students in COE for entrepreneurship practice; supply any missing item and make suggestions to improve the quality of the instrument. Their suggestions were utilized to produce the final copy of the questionnaire for the study.

Pilot Test

To establish the reliability of the instrument, thirty (30) copies of questionnaire were distributed to NCE III in College of Education, Adamawa who were not be part of the subjects. This is in line with Olaofe (2010) who stated that pilot tests are conducted with a small sample size of respondents similar but not the same as the ones that would be used in the study proper. The 30 students were randomly selected using simple random sampling. Following the pilot test, the areas of difficulties, spellings and ambiguities in instrument were further refined and made easier for respondents' comprehension.

Reliability of the Instrument

Cronbach Alpha method was used to determine the internal consistency of the instrument. The questionnaire was administered on a sample size of 30 final year College of Education students, Adamawa, which is outside the study area but have similar features to the studied area. The questionnaire was retrieved and analysed using Statistical Package for Social Sciences (SPSS) to determine the reliability coefficient. The result gave reliability co-efficient of 0.87. Thus, the instrument was considered reliable. This in line with Olayiwola (2010) stated that a reliability estimate of 0.60 and above is high and the instrument for which it is calculated is reliable and stable.

Method of Data Collection

One hundred and eighty-nine (189) copies of the questionnaires were distributed and collected by the researchers for analysis. The questionnaire comprised of forty-three (43) items.

Method of Data Analysis

The data collected for this study was analysed using mean to answer the research questions and standard deviation to determine the closeness or otherwise of the responses from the mean, while t -test statistic was used to test the null hypotheses of no significant difference at the probability of 0.05**.** The real limit of number was used for interpreting the analysed data for the research questions as follows: **Highly Possessed** (HP): 3.50 - 4.0; **Moderately Possessed** (MP): 2.50 - 3.49; **Slightly Possessed** (SP): 1.50 - 2.49; and **Not Possessed** (NP): 1.00 - 1.49. In the test of hypotheses, hypothesis of no significant difference was accepted when the observed probability value was greater than or equal to 0.05 level of significance. However, it should be noted that, "where the calculated probability value is less than 0.05 level of significance, the null hypothesis for such item was not accepted."

PRESENTATIONS AND ANALYSES OF RESULTS

Research Question 1: What are the hindrances to acquiring ICT Entrepreneurial Skills required by Business Education students for effective entrepreneurship practice?

Table 2 Mean and Standard Deviation of ICT Managerial Skills by Business Education Students

S/No.	Items	Mean	SD	Remark
1.	Lack of interest by students	1.50	0.47	D
2.	The facilities are costly to procure by the school	3.30	0.56	A
3.	Inadequate ICT facilities	3.90	0.57	A
4.	Lack of adequate or constant power supply	4.00	0.36	A
5.	Lecturers are not competent to teach these skills	2.10	0.65	D
6.	Lack of awareness of these entrepreneurship opportunities	4.60	0.55	A
7.	Lack of entrepreneurship education	3.20	0.45	A
8.	Poor funding on the part of government	4.10	0.47	A

Source: Field Survey, 2024

Table 2 revealed that item 38, 42 and 48 with mean scores below 1.50 - 2.20 and standard deviation of 0.47 - 1.21 indicate that these are not the hindrances to acquiring ICT skills by vocational and technical education students. While 11 items with mean scores of 3.20 - 4.60

and standard deviation of 0.45 - 0.57 show that the items are hindrances to acquiring ICT skills by vocational and technical education students.

Research Question 2: What are the basic ICT skills possessed by Colleges of Education students for effective entrepreneurship practice in an era of uncertainties in Nigeria?

Table 3 Mean and Standard Deviation of Basic ICT Skills possessed by students in Colleges of Educ. in an era of uncertainties in Nigeria

S/No.	Items	Mean	SD	Remark
9.	Ability to booth the computer	4.50	1.23	A
10.	Ability to produce text document	4.10	1.12	A
11.	Ability to save document	4.20	1.32	A
12.	Ability to retrieve saved document	3.80	0.56	A
13.	Edit a document	3.10	0.54	A
14.	Page a text	2.90	0.43	A
15.	Copy and update document	3.00	0.55	A
16.	Knowledge of graphics and design	3.20	0.45	A
17.	Print document	4.60	1.42	A
18.	Ability to delete document	4.10	1.22	A
19.	Ability to use design and layout	3.90	0.65	A
20.	Create subdirectories	2.40	0.46	D
21.	View document	3.00	0.34	A
22.	Scan text or photographs into computer	3.60	0.44	A
23.	Ability to store document in CD and flash drive	3.90	0.67	A
24.	Ability to operate electronic filling	2.40	0.53	D
25.	Ability to use scanning machine	2.60	0.34	A
26.	Fax messages	2.40	0.42	D
27.	Browse download information from the net	3.90	0.34	A
28.	Ability to use internet	3.40	0.58	A
29.	Ability to use email	3.90	0.77	A
30.	Ability to use photocopier	4.00	1.50	A

Source: Field Survey, 2024

The data presented in table 3 revealed that out of the 24 basic ICT skills listed only three (3) skills were not possessed by Business education students. These are the skills to create sub-

directories, operate electronic filling and fax messages with mean below 2.50 and standard deviation ranging between 0.42 - 0.46.

Research Question 3: What are the online ICT skills possessed by vocational/technical education students for effective entrepreneurship practice in an era of uncertainties in Nigeria?
Table 4 Mean and Standard Deviation of the ICT Communication Skills Possessed by College of Education Students in an era of uncertainties in Nigeria

S/No.	Items	Mean	SD	Remark
31.	Ability to use the internet	3.80	1.56	A
32.	Knowledge of the www, LAN	2.30	0.54	D
33.	Ability to create and send document via email	2.10	0.23	D
34.	Browse and download information from net	2.50	0.45	A
35.	Use social networking sites	3.00	0.65	A
36.	Ability to create web sites	1.20	0.43	D
37.	Ability to upload information into the net	2.20	0.56	D
38.	Ability to chat on line	3.20	0.34	A
39.	Ability to source information using web engines	2.20	1.22	D
40.	Ability to make business transaction on line	1.20	1.30	D
41.	Ability to network with individual and group	2.00	0.23	D
42.	Ability to create web sites for customers	2.20	1.00	D
43.	Ability to protect sites from hijackers	1.10	1.20	D

Source: Field Survey, 2024

The data presented in table 4 shows that out of the thirteen online ICT skills listed, vocational/technical education students possessed four of the skills with means ranging from 2.50 - 3.80 and standard deviation of 0.45 - 1.56. The online skill mostly possessed by vocational/technical education students is the ability to browse and chat on line. They do not possess online skills such as the ability to protect sites from hijackers with mean of 1.10 and standard deviation of 1.20

Summary

The researchers presented reviewed work of authors as related to the study on various sub-headings as discussed above for better understandings of the work in its entirety. It was found that ICT has serious roles to play in the effective delivery of entrepreneurship activities. However, there are hindrances to the success of this lucrative job. The study investigated ICT skills required by Colleges of Education students for Entrepreneurship practice in an era of uncertainties. The mean responses of the respondents on the data presented in table 3 show that all basic computer skills are highly needed by students for effective self-sustenance. This shows how important these skills are for successful business enterprise. This is in line with Obora (2008) who stated that graduates who do not have ICT skills cannot be employed in the

present world of work. Table 3 revealed that the highlighted skills identified, were possessed by vocational and technical education students for self-sustenance.

The findings are in line with McCloud (2015) who stated that students need basic online skills such as the ability to protect sites from hijackers and ability to create web site and make business transactions amongst others. These ICT skills will help students attain economic growth and self-sustain, improves the quality of lives and contribute to the economy. Table 1 show the result on the hindrances to the acquiring of ICT skills by vocational and technical education students. The result also revealed that out of the 11 items, 9 of the items were required by vocational and technical education students. This includes inadequate ICT facilities, lack of technicians to maintain the facilities and lack of power supply. This is in consonance with Osuwa (2002) who asserted that the problem of electricity instability is a major setback to Nigerian technological development. The lack of access to technological infrastructure such as computers, poor internet connectivity, high cost of cyber café tariff, high cost of maintaining computer and non-inclusion of these skills in the program are hindrances to acquiring ICT skills. Curriculum is tailored to theory not practical skills. If they possess these competencies they can be self-employed thereby reducing poverty and unemployment in Nigeria.

Skill is the ability to do a task expertly, it is the ability coming from ones knowledge, practice, and aptitude etc. to do something well. Bleak in Uzor and Ike (2010) described skill as ability to do something well, gained through training and experience. Uzor and Ike also define skill as one's personal competencies in the performance of specific tasks acquired after a period of training or experience. According to Okoro and Ursula (2012), the first is the conditions which promote acquisition and the second is the change that will occur when the skill is acquired. Skill acquisition process in a developing country like Nigeria should be in three stages: theoretical, practical and exposure to challenges (Peace, 2019).

Hubert and Stuart in the article "Five stages from Novice to expert," state that human beings acquire skills through instruction and experiences, they do not appear to leap suddenly from rule-guided "knowing that" to experience-based knowing-how. Hubert and Stuart believed that there is a gradual process involved for a student to go through in order to reach the stage of expertise or knowing-how. Their skill acquisition process shows that a student goes through at least five stages of different knowledge of a specific task and ways of decision-making as he improves his skill. These five stages are novice, advanced beginner, competence, proficiency, and expertise. This assertion holds true in a vocational education programme in Colleges of Education where several courses, both theoretical and practical are taught to the students, who before now had little or no knowledge about such courses.

The National Policy on Education (2013) emphasised the need to empower youths with ICT skills to prepare them for competitiveness in the global environment, integrating ICT into the mainstream of education, and training, it became imperative to adopt these new technologies in order to expand access to the education (by use of synchronous learning, access to the

internet and world wide web). ICT also strengthens the relevance of business education to the work place, which is in conformity to Prosser's environmental theory of vocational education. Sajuyigbe and Alabi (2012) also argued that ICTs are being used for strategic management, communication and collaboration, customers' access, managerial decision making, data management and knowledge management since it helps to provide an effective means of organizational productivity and service delivery. Furthermore**,** Ashrafi and Murtaza (2018) also agreed with the assertion that information and communication technologies (ICT) have positive effect on firm performance in terms of productivity, profitability, market value and market share. In the research study of Minton (2013) affirmed that buyers and sellers are able to share information and transfer goods across national borders with the use of ICT, which helps to increase access to global supply chains.

Conclusion

From the findings of this study, the researchers concluded that entrepreneurship skills are highly required by students in College of Education as they have tremendous influence on establishment of small-scale businesses. Accounting and ICT skills, for instance, when properly utilized play significant role in enhancing effective establishment of small-scale businesses by students. It was found that ICT has serious roles to play in the effective delivery of entrepreneurship activities. However, there are hindrances to the success of this lucrative job.

By the foregoing, it can be understood that many countries' policy considers entrepreneurship as the underpinnings of their economy's industrialization and therefore promotes entrepreneurship. ICT entrepreneurship, however, still has a significant amount of growth. Entrepreneurship is a prerequisite for the development of technology, and the development of technology is a foundation for entrepreneurship education. Government agencies should develop and strengthen the entrepreneurial background in computer technology, which is communication and information networks, and provide easy access to these networks while developing and developing the use of networks, as well as design and evaluate rules and regulations.

Recommendations

Based on the findings of the study and discussions outlined the previous pages of this work, the following recommendations have been advanced by the writers:

1. Students should be exposed to entrepreneurship skills by their teachers to enhance their acquisition of relevant skills for the establishment of small-scale businesses for self-employment.
2. There is need for ICT lecturers and instructors to train and regularly re-train themselves on the use of modern ICT tools for effective teaching and learning
3. Laboratories should be established and adequately equipped to enhance education and encourage practical appreciation of ICT in office functions and tasks.

4. There is also the need for constant electricity supply as all ICT laboratories are powered by electricity.
5. Adequate ICT practical classes must be organized for the students from time to time.
6. Collaborative efforts between the institutions and various organizations for the OTM and Entrepreneurship education lecturer/instructors and students to familiarize with the contemporary office procedures and work.
7. The State Ministry of Education should train and retrain teachers on the use of various entrepreneurship skills in their instructional delivery to ensure students' acquisition of these skills for establishment of small-scale businesses after graduation.
8. The inspectorate division of the Ministry of Education should use entrepreneurship skills acquired by the students as criteria for assessing business education teachers' performances.
9. Students of Colleges of education should be trained in basic ICT skills and computer activities.
10. ICT skills identified in this research should be included in the Colleges of Education curriculum so as to make the students employable or self-employed upon graduation.
11. All hindrances to acquiring ICT skills as identify in the study should be address by stakeholders in education to improve student's skills in ICT.

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