

Entrepreneurial Information and Communication Technology Skills Acquisition for Self-Sustainability by Postgraduate Business Education Students in Rivers State

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Abstract

The study ascertained the level of acquisition of entrepreneurial information and communication technology skills by post-graduate business education students for self-sustainability in Rivers State. One research question was posed for the study and one hypothesis tested at 0.05 level of significance. The design of the study was descriptive survey. A total of 298 business education postgraduate students in two owned Rivers State universities made up the population. The population consisted of 44 postgraduate business education students in Rivers State University and 254 postgraduate business education students in Ignatius Ajuru University of Education in Rivers State. The instrument for the study was named: Entrepreneurial Information and Communication Technology Skills Acquisition Questionnaire (EICTSAQ). Three experts validated the instrument and a reliability test using Cronbach Alpha method yielded a score of 0.86 for internal consistency. The Mean rating and standard deviation were used to answer the research question while t-test for large group mean was used to test the hypothesis level of significance at 0.05. The findings of the study revealed that business education postgraduate students acquired moderate level of entrepreneurial ICT skills for self-sustainability. The findings of the study also revealed that the postgraduate business education students in Rivers State University and Ignatius Ajuru University of Education did not differ significantly regarding the level of acquisition of entrepreneurial ICT skills for self-sustainability. Based on the findings, conclusion was made that entrepreneurial ICT skills acquired by postgraduate business education students affect their level of self-sustainability and the authors therefore recommended among others that entrepreneurship centres in universities or any other tertiary institutions in Nigeria must be equipped and utilized to assist these institutions to bridge the gap created by the theoretical nature of entrepreneurial programmes in institutions. The authors also recommended that administrators of institutions should provide quality time in the school time tables for teaching the practical aspects of entrepreneurship education for mastery learning and sustainable accounting skills acquisition. Furthermore, there should be continuous training and retraining programme for business educators so as to update their knowledge and skills on the use of entrepreneurship skills in teaching entrepreneurship education. This will help business educators to be up-to-date with current

entrepreneurial marketing skills that will promote students' self-sustainability in the operation of businesses.

Keywords: *Entrepreneurial Information and Communication Technology skills, Acquisition, Business education and Self-sustainability*

Introduction

The need for information and communication technology (ICT) as a tool in entrepreneurial activities cannot be over emphasized. In this technology driven age, everyone requires ICT competence to survive. Entrepreneurs are finding it very necessary to train and re-train their employees to establish, increase their knowledge of computers and other ICT facilities (Adomi and Amic, 2006). This calls for early acquisition of ICT skills by business education graduate students that are into different entrepreneurial activities.

Business education graduate students need to meet up with the challenges of the present ICT driven economy. Today, the place of ICT in education cannot be undermined. Modern day businesses are now operated and made easier through the use of information and communication technologies such as telephone, fax machines, photocopiers, printers, computers, social media, and internet facilities amongst others. The emergence of ICT has given rise to e-commerce, e-teaching, e-banking amongst others. Also, Agbatogun, Ajelabi, Oyenusi and Inegbedion (2011) asserted that technology has become a vital tool in almost all human endeavours. How well a business succeeds depends to a great extent on the availability of ICT resources needed to carry out operations. The application of ICT entrepreneurial skills in business education is essential as it will help the students to adapt to the changing world of work.

In modern business world, ICT has taken over a good percentage of managerial activities. Before the emergence of ICT, business activities were carried out using the traditional method which strictly adhered to laid down rules and procedures, and information was processed and disseminated manually through typewriters, papers, manual filling processes, internal memos, post offices, telegrams, land and telephones. This made certain works tedious, cumbersome, tiring, and slow. Decision making was delayed due to insufficient access to data needed to provide the required information. But the emergence of ICT has made everything simple and easy. The means of generating, storing, retrieving and processing information has improved.

It is unfortunate to see business education graduates roaming the streets in search of non-existent jobs while employers unsuccessfully search for ICT skills from workers. This ought not to be, but rather, it is expected that the business education graduates should be able to harness the ICT skills developed while in school in order to be self-reliant and self-employed for self-sustainability.

At this juncture, it is important to define ICT skills from a number of perspectives. ICT skills are defined as the ability to use digital technologies, communication tools and/or networks to solve information problems in order to function in an information society. This includes the ability to use technology as a tool to research, organize, evaluate, and communicate information and the possession of fundamental understanding of the ethical/legal issues surrounding the access and use of information. Gnudi and Lorenzi, (2012) outlined the skills required as the ability to independently operate personal computer systems, use software for preparing and presenting work, use internet and its various features, access and use information from World Wide Web (www), use an e-learning platform and perform analysis with a computer package. With the possession of these skills, the business education

graduate students would have been adequately prepared for self-sustainability in their respective business endeavours.

Information and communication technology has become an integral and accepted part of everyday life for many people. Technology is increasing in importance in people's lives and it is expected that this trend will continue, to the extent that technological literacy will become a functional requirement for people's work, social and personal lives. The creative use of Information and Communications Technology (ICT) in business education programme has the capacity to increase the quality of people's lives by enhancing teaching and learning.

It has become so surprising that skills associated with ICT are increasingly taken for granted at all stages of students' university existence. Every university expects students to have appropriate computer skills. In fact, most universities assume that new students are computer-literate when they arrive in contrast to past expectations, that all new students would need some basic computer training (McDonald, 2010). The assumption is that these skills, taught at the beginning of student's career would be able to carry them through graduation. It is obvious that business education graduate students who intend to become self-employed and self-sustainable must possess skills in the use of the following programme according to Farese, Kimbrell and Woloszy (2010): word processing, database, spreadsheet, desktop publishing, presentation software, web page editors.

Word Processing Programmes

Word processing programmes are software applications designed to create documents that are primarily text but that may contain a few graphics. Garrison and Anderson (2003) explained the benefits of a word processing programme to include the ability to determine the format of a document and see on screen exactly how the document will look when printed out. According to Farese et al, (2010), businesses use word processing programmes to: write letters and memos, produce research papers and reports, develop business and marketing plans, write contracts, take notes and record meeting minutes, create announcements.

Database Programmes

Database programmes are applications that store and organize information. They are like filing cabinets but with greater flexibility. Database programmes allow users to sort, find, choose (or filter), and organize information. A single database can hold information about the products a company sells, the orders the company has received, shipments of those products, and its customers. The power of a database is its ability to link that information together. According to Clarke III and Flahery (2005), marketers use database programmes to: maintain customer lists for automated mass mailings, keep information about guests and vendors for parties and events, catalogs furniture and assets for insurance records, manage time and track billable hours, scan the internet to find suppliers and customers, track the searches and purchases of clients visiting websites.

Spreadsheet Programs

Spreadsheet programmes are used to organize, calculate, and analyze numerical data. With spreadsheets, one can perform financial and scientific calculations, organize numerical information, illustrate data with charts, and graphs, and create professional looking sound reports. Spreadsheets also graphically display the relationship of data in the form of charts and graphs that are often easier for people to understand than tables or raw data. Microsoft Excel is one of the most popular spreadsheet programmes. According to Hooley, Piercy and Nicouland (2008), business people use spreadsheets for many purposes such as develop a budget, analyze financial performance, track loans or mortgages, track stock and bond performance, schedule projects, manage business assets, product profit and loss statements, calculate and produce a payroll, track client/customer responses to marketing promotions,

build relationship marketing based in customer value profiles, track sales and service, conduct marketing research

A spreadsheet consists of a grid of rows and columns. Users enter data and formula into cells on the grid, and the program performs calculations with speed and accuracy not possible by hand or with a calculator.

Desktop Publishing Programs

The invention and rapid development of desktop publishing programmes illustrates both the computer's creative potential and its usefulness for business. Part word processor and part graphics application, desktop publishing programmes enable users to edit and manipulate both text and graphics in one document. This is how books, magazines, and flyers are designed and produced (Farese et al, 2010). Desktop publishing software can produce documents that are creative, eye-catching, attractive, professional, and easy to read. According to Nykiel (2009), business education graduate students can use desktop publishing to: create layouts for newsletters, books, brochures, and advertisements, create professional – looking forms, such as invoices and project planning sheets.

Presentation Software

Presentation software produces slide shows or multimedia presentations. This software helps users organize ideas and concepts to be presented in a meeting. In the views of Clarke and Flaherty (2005), presentation software can be used by business and marketers to: prepare verbal and visual copy for meetings, present and discuss ideas interactively via the internet with chains in other cities or countries, create slide shows using pictures or web pages, add voice narration to accompany visual material.

Web Page Editors

The web has become an integral part of the world. Many businesses use their websites to promote their companies and products and to stay connected to their customers. Websites generally contain an initial home page which is the entry point for a website. It gives general information to introduce the company, person, or product. The home page has links to other pages containing additional information, such as product details and contact information (Nykeil, 2009).

Communication is universally accepted as a powerful instrument and crucial management tool for organizational effectiveness. Business education students are expected to possess relevant skills in communication since they are exposed to some courses in business communication. These skills will help them in running their businesses successfully. It offers to the students the unique strategy for a successful business venture. Similarly, Enudi, Okagbare and Akpere, (2008) and Okwuanaso and Agbaru (2010) outlined the following communication skills as required by business education graduate students: ability to convey ideas to people, ability to be concise, confident and adaptable in presenting yourself and your ideas, ability to take criticisms and listen to conflicting views and ideas, ability to conduct a productive meeting either in small or big group situation, ability to effectively utilize a variety of modes or presentation, such as face to face communication, written, public/private, group/individual in any given environment, ability to construct reasonable, logical argument and arrange evidence appropriately to support an argument, ability to ascertain what information is needed to be conveyed, ability to write clearly and concisely, ability to use language that is appreciated for both the topic and the audience, ability to speak clearly with empathy, ability to display good listening skills, ability to formulate points of views, ability to delivery public speech.

Skill acquisition is defined as the ability to be trained on a particular task or function (Mike, 2014). Mike emphasized that the importance of skill acquisition includes self-employment, diverse job opportunities, employment generation, effective function, and crime

reduction. Idoko (2014) defined skill acquisition as the form of training by individuals or group of individuals that can lead to acquisition of knowledge for self-sustenance. It involves the training of people in different fields of trade under a legal agreement between the trainers and the trainees for certain duration and under certain conditions.

Ochiagha (1995) stated that skill acquisition is seen as the ability to do or perform an activity that is related to some meaningful exercise, work or job. Ochiagha maintained that for skills to be acquired, appropriate knowledge, attitudes, habit of thought and qualities of character are learnt to enable the acquirer develop intellectual, emotional and moral character which prepares the individual for a brighter future.

Similarly, Donli (2004) was of the view that skill acquisition is the manifestation of idea and knowledge through training which is geared towards instilling in individuals, the spirit of entrepreneurship needed for meaningful development. Donli stressed that if individuals are given the opportunity to acquire relevant skills needed for self-sustainability in the economy, it will promote their charisma in any work or business situation.

Equipping business education postgraduates students with different skills are means of taking corrective measure for the high level of unemployment. Without skill acquisition the national goals of employment generation and self-sustainability cannot be realized hence corruption and violence will rise to high level.

Self-sustainability is defined as the social and economic ability of an individual, household or a community to meet essential needs (including protection, food, water, shelter, safety, health, business and education) in a sustainable manner and with dignity (Anukan, 2013). Ogbonna (2017) pointed that self-sustainability refers to dependence on one's abilities, judgment and resources to do whatever should be done. It is a state of being in which a person or an entrepreneur needs little or no help from or interaction with others.

An individual is said to be self-sustained when the individual can depend less on other people and family in the management of human and material resources. Citizens of a nation will be self-sustained when they have possible cause to access and utilize the essentials of life which includes good food, clothing, shelters, medications, transportations and functional education (Ofoye, 2015). For one to be sustainable, one must be enterprising, and one is enterprising when there is attributes of verbal skills for selling, dominating, leading, seeing oneself as a strong, masculine leader (Ugwuda, 2014). There are evidences from the developed societies that shows a positive relationship between entrepreneurial skill acquisition and self-sustainability (Agbeze, 2012).

In order to be able to understand the concept of business education, it would be necessary to look at the definition of business education from different authors' perspectives. Evans (2011) viewed business education as an essential part of the preparation of youth for life and living. To Agbola (2015), business education is a form of education that is concerned with the acquisition of skills. Ubulom (2012) described business education as a collaborative programme in which educational and industrial sectors of any economy form partnership thereby preparing individuals to adequately fit into both industry and the classroom as professionals. Consequently, business education can simply be defined as that aspect of educational programme designed to provide an individual understanding knowledge, values, attitudes and skills needed in the business world, thereby producing responsible, productive and self-reliant citizens. For the purpose of this study, business education is defined as a programme designed to produce manpower that possesses the required knowledge, skill and attitude for harnessing other resources, bringing them into goods and services demanded by the society for the satisfaction of wants

Purpose of the Study

The main purpose of this study is to ascertain the level of entrepreneurial information and communication technology skill acquired by postgraduate business education students for self-sustainability in Rivers State.

Research Question

One research question guided the study
What is the level of acquisition of entrepreneurial information and communication technology skill by postgraduate business education students for self-sustainability in Rivers State?

Hypothesis

One null hypothesis was tested at 0.05 level of significance.
There is no significant difference in the mean ratings of postgraduate business education students of Rivers State University and Ignatius Ajuru University of Education on the level of acquisition of entrepreneurial information and communication technology skill for self-sustainability.

Method

The study was carried out in Rivers State University and Ignatius Ajuru University of Education, Port Harcourt, Rivers State. The design of the study was descriptive survey. One research question guided the study and one hypothesis was tested at 0.05 level of significance. The population of the study was 298, which consisted of 44 postgraduate business education students in Rivers State University and 254 postgraduate business education students in Ignatius Ajuru University of Education in Rivers State. The instrument for the study was named: Entrepreneurial Information and Communication Technology Skills Acquisition Questionnaire (EICTSAQ). Three experts validated the instrument and a reliability test using Cronbach Alpha method yielded a score of 0.86 for internal consistency. The data collected were analysed using mean ratings and standard deviation for the research question and t-test for large group mean was used to test the hypothesis level of significance at 0.05. The decision rule was: if the calculated t-value was greater than critical value, the hypothesis was rejected and if the calculated t-value was less than the critical value, the hypothesis was accepted

Results:

Research Question : What is the level of acquisition of entrepreneurial information and communication skills by postgraduate business education students for self-sustainability in Rivers State? To answer the research question, the data collated on items 1-13 were analyzed and presented in Table 1

Table 1: Mean and Standard Deviation on the Level of Acquisition of Entrepreneurial Information Communication Technology Skills by Postgraduate Business Education Students for Self-Sustainability in Rivers State

s/n	Item Statement	(N=236)	SD	RMARKS
		\bar{X}		
1	Independently operate a personal computer system	3.68	1.35	HL

2	Access and use information from the internet and networking services	3.35	1.24	ML
3	Ability to produce text document	3.45	1.25	ML
4	Ability to use spread-sheet programs	3.79	1.28	HL
5	Develop listening, speaking, writing and reading skills	3.47	1.29	ML
6	To communicate fluently	4.01	1.07	HL
7	To organize work and present points logically in simple language	3.27	1.19	ML
8	Ability to use word processing programs	3.49	1.15	ML
9	Able to interact professionally with customers	3.54	1.12	HL
10	To create, format, save, retrieve and print documents	3.44	1.41	ML
11	To comprehend and use computer hardware/software selection and analysis	3.36	1.27	ML
12	To use graphic and design programs	3.17	1.37	ML
13	To be concise, confident and adaptable in presenting yourself and ideas	3.26	1.30	ML
	Total Mean / SD	45.28	16.29	
	Grand Mean / SD	3.48	1.25	ML

ML = Moderate, HL = High Level Year = 2021

Data in table 1 show the levels of acquisition of entrepreneurial information communication technology skills by postgraduate Business Education Students for self-sustainability in Rivers State. Out of the thirteen items analyzed, four variables were ranked high level, while nine items were ranked moderate level. The four items ranked high level include: independently operate a personal computer system (mean=3.68), ability to use spread-sheet programs (mean=3.79), to communicate fluently (mean=4.01) able to interact professionally with customers (mean=3.54). The items ranked moderate level include; access and use of information from the internet and networking services (mean=3.35), ability to produce text documents (mean=3.45), develop listening, speaking, writing and reading skills (mean=3.47) to organize work and presents point logically in simple language (mean=3.27) ability to use word processing programs(mean=3.47), to create, format, save, retrieve and print documents (mean=3.44) to comprehend and use computer hardware/software selection and analysis (mean=3.36), to use graphic and design programs (mean=3.17), to be concise, confident and adaptable in presenting yourself and ideas (mean=3.26). The grand mean of 3.48 and standard deviation of 1.25 confirmed moderate levels of acquisition of entrepreneurial information communication technology skills by postgraduate business education students for self-sustainability.

Hypothesis :

There is no significant difference in the mean ratings of postgraduate business education students of Rivers State University and Ignatius Ajuru University of Education on the level of acquisition of entrepreneurial information and communication technology skill for self-sustainability.

Table 2: t-test Analysis of the Mean Responses of postgraduate Business Education Students in RSU and IAUE on the level of acquisition of entrepreneurial information communication technology skill for self-sustainability.

Respondents	N	\bar{X}	SD	DF	Alpha	t-cal	t-crit	Decision
IAUE	236	3.62	1.48	278	0.05	1.33	1.96	Accepted
RSU	44	3.34	1.23					

t-cal (t-calculated), t-crit (t-critical).

Data in Table 2 reveal the t-calculated of 1.33 at 0.05 level of significance, while the t-critical value is 1.96. Since the calculated t-value of 1.33 is less than the t-critical value of 1.96, the null hypothesis is upheld. This means that postgraduate business education students in Rivers State University and Ignatius Ajuru University of Education do not differ significantly in their mean rating of their level of acquisition of entrepreneurial information and communication technology skill for self-sustainability.

Discussion of Findings

From the result related to the research question, it was revealed that business education postgraduate students acquired moderate level of entrepreneurial information communication technology skills for self-sustainability, which includes independent operation of personal computer systems, use of software for preparing and presenting work, use of the internet and its various features, access and use information from World Wide Web (www), use of e-learning platform to perform analysis with a computer package, ability to produce a text document, ability to create, format, save, retrieve and print documents. In line with the findings, Farese, Kimbrell and Woloszy (2010) stated that business education graduates who intend to become self-employed and self-sustainable must possess skills in the use of the following: word processing, database, spreadsheet, desktop publishing, presentation software, and web page editors as they are designed to create documents, store and organize information, calculate, and analyse numerical data, edit and manipulate both text and graphics in one document, organize ideas and concepts to be presented in a meeting, and also to stay connected to their customers as these skills will help them in running their businesses successfully. This finding is also in agreement with the view of Agbatogun, Ajelabi, Oyenusi and Inegbedion (2011) who asserted that since technology has become a vital tool in almost all human endeavours, how well a business succeeds depends to a great extent on the availability of ICT resources needed to carry out operations. The application of ICT entrepreneurial skills in business education is essential as it will help the students to adapt to the changing world of work.

Test of the hypothesis revealed that there was no significant difference in the mean ratings of postgraduate business education students of Rivers State University and Ignatius Ajuru University of Education on the level of acquisition of entrepreneurial information communication technology skills for self-sustainability. Following the responses of the respondents, the researcher is of the view that post graduate business education students ought to concentrate on these skills in order to be self-reliant and successful in their businesses.

Conclusion

Base on the findings obtained from the test of hypothesis, the researchers concluded that Entrepreneurial information and communication technology skill acquired by postgraduate business education students affect the student's level of self-sustainability. Remarkably, these skills are veritable tools that prepare business education graduates for the world of work and become self-sustainable as operators of business ventures. Lack or absence of these skills negatively affects graduates in embarking on business ventures.

Recommendations

- 1 Students that are not ICT compliant should as a matter of urgency acquire the skills by enrolling in the ICT training centres operated and owned by the universities. The training will enhance their expertise in the use of ICT tools and thereby, becoming effective business operators after graduation.
- 2 The graduate students of business education must be able to maintain entrepreneurial characteristics and traits by finding solution to problems that will arise when operating business ventures. The courage to continue the business will lead to success and self-sustainability.

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