

# **Information and Communication Technology Competencies Acquired by Business Education Graduates Workers in Edo State Civil Service**

Osawaru, Justus Aghatise<sup>a</sup>, Kennedy Ediagbonya<sup>b</sup>

<sup>a</sup> *Department of Business Education, College of Education, Ekiadolor, 302116, Edo, Nigeria*

<sup>b</sup> *Department of Business Education, Faculty of Education, Ambrose Alli University, 310103 Ekpoma,  
Edo State, Nigeria*

*Corresponding Author: [ken@aauekpoma.edu.ng](mailto:ken@aauekpoma.edu.ng)*

**To cite this article (APA):** Ediagbonya, K., & Aghatise, O. J. (2023). Information and Communication Technology Competencies Acquired by Business Education Graduates Workers in Edo State Civil Service. *International Business Education Journal*, 16(2), 100–114. <https://doi.org/10.37134/ibej.Vol16.2.8.2023>

**To link to this article:** <https://doi.org/10.37134/ibej.Vol16.2.8.2023>

## **Abstract**

The study describes the acquisition level of information and communication technology (ICT) skills among business education graduates workers in the civil service of Edo State and determines the differences in ICT skill acquisition between male and female workers. Using a descriptive survey design, 200 business education graduates workers from 27 ministries in Edo State are surveyed. The data are collected using a questionnaire which contain 22 items rated based on five-point Likert scale. Descriptive analysis and t-test are conducted to answer the research questions. Based on the analysis, workers from business education field acquired internet competencies lowly and data management system competencies moderately. Moreover, this study confirmed a significant difference in acquired internet competencies between male and female workers. However, the analysis failed to verify a significant difference in acquired data management system competencies between male and female workers. Accordingly, this study recommends the government ministries purchase and install the latest model of ICT facilities to increase their usage by workers for enhanced efficient, effectiveness and positive productivity. More importantly, higher education system should reflect on their current teaching and learning practices to accommodate the different needs of male and female business education students to ensure both genders possess adequate competencies upon graduation.

## **Keywords:**

Information and Communication Technology (ICT), Competencies, Business Education Graduate, Civil Service

## **INTRODUCTION**

Information and communication technologies (ICTs) are now regarded as a necessity that influence how everyone live and view the world. It is impossible to overstate the importance of ICTs in today's business and in society at large. There is a common and accepted understanding that the world is in the ICT age which is also known as the information age or the jet age where the positive impact of ICT is significantly experienced. Information processing is done using computers and other electronic devices as part of ICT. The usage of ICTs is quickly rising in importance and becoming one of the key components defining the fundamental skills in the educational system and the workplace. From a more technical perspective, Nana and Samuel (2014) defined ICT as the tools, infrastructure, procedures, and

machinery that offer the necessary physical infrastructure and services for the generation. ICT is a mean for transmitting, processing, storing, and disseminating information in multiple formats such as audio, visual/graphic, text, data, and video.

According to Nwabuaze (2015), ICT is an all-encompassing term that covers any communication device or application, including radio, television, cell phones, computer and network hardware and software, satellite systems, as well as a variety of services and applications linked to them like video conferencing and distance learning. Many organizations have been affected by innovative technologies in every way. The way government agencies acquire, retrieve, store, modify, and communicate information to customers has radically changed as a result of technological breakthroughs in computer, mass storage, and communication. To move public offices to the forefront of modern knowledge, the government of Edo State is dedicated to utilizing cutting-edge technology. However, new and experienced employees need to be trained and prepared to use of ICT first. Therefore, the John Odigie Oyegun Public Service Academy (JOOPSA) was established ([https://joopsa.edostate.gov.ng/brochure/joopsa\\_brochure.pdf](https://joopsa.edostate.gov.ng/brochure/joopsa_brochure.pdf)). This institution is charged with transforming the public sector of Edo State into the knowledge era. Yusuf and Onasanya (2013) responded by noting that this has caused human society to transit from the information era to the knowledge age due to the presence and quick development of ICT. As a result, ICT is seen as an innovation that empowers graduates, even those with business degrees working in the civil service, to complete their office works quickly and effectively.

One of the staff members in charge of the nation's government's public administration is the civil service. It does not include the judicial, legislative, or military branches (Tise, 2015). As purported by Olugbenga (2015), civil service comprised of government servants whose positions are not dependent or interrelated with politics or judicial system. Worker with business education backgrounds who operate in various ministries' offices carry out administrative tasks using contemporary automated devices including computers, addressing machines, scanners, printers, android phones, and laptops, among others. Without the possession of pertinent ICT competencies and the availability of the resources in government ministries, business education graduate professionals cannot perform their managerial duties successfully (Okolocha & Ezike, 2018). This is due to the fact that workers in the Edo State government service who have received business education are motivated to work harder in this rapid technological evolution surrounding office work procedures. As a result, they are expected to use the new technology with increased responsibility.

All staff categories—including graduates of business and educational institutions— included in the workforce of the various ministries, must be retrained due to the application of these new technologies in the existing tasks and the growing demands of the work. To cover the gap in operating and manipulating current technology for successful job performance, only trained and retrained personnel with the new technologies are needed. Depending on how much they develop ICT proficiency, business education graduates working in the civil service will be able to use ICTs to efficiently complete their office activities. This explains their competency in getting tasks done.

Olaitan (2003) defined competency as the general knowledge, abilities, attitudes, and judgment needed to successfully complete a task. In order to succeed at a job, according to Oliva's (2012) theory, a person must have the knowledge, abilities, attitudes, values, and drive to do well. Competency, however, frequently entails more than just knowledge and skill levels; it also calls for the efficient application of current information and skills in a particular situation

(Egodawatte 2014). Competency is one's ability to utilize, apply and exploit related information, talents and skills to effectively and efficiently perform a task specifically in workplace. ICT competencies, according to Idowu and Ogunbodede (2013), comprise utilising computer-based technologies to create, modify, save, and retrieve information as well as to express ideas and interact with others. ICT competencies, as used in the context of this study, pertain to a worker's capacity to operate, manipulate, and deliver office duties utilizing ICT equipment. Internet and data-based management are just two of the ICT competencies expected of business education graduates workers and staffers, yet they are not covered in the previous business school curriculum. Jameel and Ahmad (2020) confirmed that ICT skills had a significant effect on productivity. Moreover Edun and Seyubi (2022) found that ICT literacy had a positive significant relationship with job performance. However, more studies should be conducted to specify ICT skills required to achieve productivity and better job performance.

A database is a group of data that has been structured for storage in a computer memory and created for authorized users to easily access (Agomuo, 2014). The talents needed for the generation, storage, retrieval, and use of information from databases are known as database management skills. Workers with a business education can input a vast number of records, manipulate them, and provide results in numerical form thanks to database management system skills. A database is a collection of data that can be transformed into meaningful information and examined in various ways. Ezenwafor (2015) claimed that databases aid in the acquisition of a sizable amount of data, which are regularly validated, saved, accessed, and updated. For database management, Eze (2007) listed the following skills: creating records and spreadsheets, sorting columns, defining fields and cells, inputting and changing data, going from record to record, inserting rows and columns, and having a fundamental understanding of how to develop mathematical formulas. One can administer a database system at its best with the help of the internet.

The ICT era's largest and fastest-growing component is the internet. The term "internet" is an acronym for the global computer communications network. The web and the digital information superhighway are some names for it (Roderick, 2013). Millions of computers may speak with one another over phone lines and other communication systems thanks to the internet, a worldwide computer network. According to Ezemoyih and Okafor (2013), among the computer and multimedia abilities that have recently altered the educational system is the internet. According to The Nigeria Internet Group (2015), the internet is a sizable information superhighway that makes it easier for computer users to communicate both domestically and internationally. Although the global network was created to meet the informational needs and interests of all segments of society, it has greatly benefited libraries and educational services across the globe. The ability to connect to the internet supports unprecedented levels of communication, collaboration, resource sharing, and information access (Chukwunonso, 2014). According to the lists of skills for using the internet by Omeje (2014), Aghatise (2015), and Akusa (2022), one must be able to use search engines, use password and username security measures, store and download information, exchange data via internet, and able to share devices such as printers and disks through established networks, among other things. Allows user interaction, such as socializing and communication. being able to record meetings and minutes using digital devices and afterwards transcribing them, to connect devices to a basic network, allowing Bluetooth connections between devices, being able to set up a wireless network, being able to connect devices and create a hotspot knowledge of if there is internet

access or connectivity, a variety of gadgets with which to access the internet, understanding of how hardware is installed and connected to computers, to be able to do online banking transactions. For graduates of business education to do their jobs effectively, Aghatise (2015) observed that this is a crucial competency area.

The Nigerian government officials' jobs involve a lot of documenting, processing, storing and retrieving information. Because a public servant's duties are so information-intensive, it is very vital for tools and technology to be employed to streamline paperwork, management, and information processing. ICT is crucial for civil service employees because it provides the value of precision, correctness, completeness, relevance, and timelessness in handling data and information (Okolocha & Ezike, 2018). To take advantage on the benefits of ICT, in-house training has been provided by the Federal Government of Nigeria (FGN, 2013) to enhance the Nigerian government servants' ICT competencies. Since then, the Edo State government has supported this admirable growth by making sure that her employees in the ministries receive new training in the development of digital skills. Both men and women who have completed their business education and are employed by the government are included in this group of people. The training is being conducted in collaboration with the Federal Capital Territory of Abuja's Digital Bridge Institute, a computer institute. The decision to continue and regularly provide training has been decided by the Federal Government (Digital Bridge Institute, 2015).

Prior to the introduction of ICT in offices, business education graduates needed to be proficient in basic office skills including reading, writing, and communication, as well as quick and accurate keyboarding and the ability to follow directions. To adapt into the period of technologically induced modern workplaces, however, workers, even business education graduates, must have other competences due to the invasion of ICT in public service offices. However, many business education graduates working today's civil service, as well as other office personnel, find it challenging to manage ICT facilities successfully (Ile, 2014). According to Tunji (2014), the main issue with Nigeria's public service is that it is unable to adapt to significant changes. Since handling information and data is one of modern technology's major capabilities, this issue must be addressed urgently if people with a background in business are to fully maximize their usage of ICT. Unnecessary loss of stored data or files, compromise of a classified database due to a poorly designed security firewall, under-utilization of ICT resources, among others, which can have detrimental effects on government business, and poor information flow necessary for the efficient operation of government offices to the general public were some of the challenges (Okolocha, 2018). If this tendency is not stopped, it may make it even more difficult for employees to use ICT resources at work, which could have a detrimental impact on society. Based on the aforementioned, the study set out to ascertain the level of ICT skills that business education graduates with jobs in the Edo State civil service have gained. In particular, this study determines:

1. database management system competencies acquired by business education graduates workers in the civil service of Edo State.
2. internet competencies acquired by business education graduates workers in the civil service of Edo State.

## **LITERATURE REVIEW**

### **Activity Theory**

The theoretical foundation of this study is Activity theory. Vygotsky (1978) introduced the idea of activity theory. Understanding human activities and work habits was the main objective of this approach. Intentionality, mediation, history, cooperation, and progress are all included within the Theory (Nardi, 1996). Its primary attention is on the activity being carried out, claims Uden (2007). Among the numerous sectors where activity theory has been used to analyze activities are information systems, communities of practice, and education. According to Vytotsky (1978), a tool serves as a conduit between a subject and an object in an action. This theory has great relevance in the accomplishment of the work in the office and it emphasizes the roles of computer, mobile devices, and internet can play in a subject's ability to execute an activity to accomplish objectives, and consequently turning it into an outcome (Kuutti, 1996; Ediagbonya, 2016). In this context, the business education graduate is viewed as the subject, and the work that needs to be done is referred to as the object. In this age of technological advancement, the use of computers, mobile devices, and the internet as tools has become extremely important in workplace. Through the application of modern technologies, the civil service is now able to complete tasks with better efficiency.

### **Information and Communication Technology**

Information and communication technology (ICT) has completely transformed every industry in the nation. ICT is an acronym for information and communications technology (ICT), which emphasizes the importance of unified communications and the integration of telecommunications (telephone lines and wireless signals) and computers as well as the essential enterprise software, middleware, storage, and audiovisual that allow users to access, store, transmit, understand, and manipulate information. Olowookere and Iyiola (2015) asserted that ICT is a concept used to describe the strength and divergent uses of computer and telecommunication devices for data and information exchange. This includes the processing, storage, selection, transformation, and dissemination of data via vocal, pictorial, numerical, and symbolic information. In a similar vein, Ezeani and Falade (2018) defined ICT as a means of information transmission through vocal, symbolic, pictorial, and electronic gadgets such as e-mailing and messages, internet and intranet using search engines, computer software (e.g., word/data processing, graphic, power point, and accounting packages like Peach tree, spreadsheet), Yahoo, Google, etc.

### **Database Management Competency**

A database is a group of data that has been structured and is stored in a computer memory for easy access by authorized users (Agomuo, 2014). Data can be stored, retrieved, and organized using a database management system (DBMS), a piece of software. To make sure that the data is correct, accessible, and available, it involves a number of functions that operate together. Three human components make up a database management system: There are three components to a database: (i) a physical database that houses the data; (ii) a database engine that facilitates access to and modification of the data; and (iii) a database scheme that offers logical organization for the data contained in the database. In a modern office, it is assumed that employees would be able to manipulate or interact with databases. The DBM competencies

of employees are mostly a result of the knowledge they got in school. In other words, the curriculum's organization is crucial to employees' DBM expertise. According to Eze (2007), the following skills are necessary for managing databases: establishing records and spreadsheets; sorting columns and defining fields and cells; inputting and changing data; moving from one record to another; inserting rows and columns; and having a fundamental understanding of how to develop mathematical formulas. Graduates are more likely to carry out their responsibilities optimally for the development of the organization if they have these competencies to a fair degree.

### **Internet Competency**

According to a 1995 Federal Networking Council resolution, the term "internet" refers to a global information system that:

- i. is logically connected by a globally unique address space based on the Internet Protocol (IP) or its subsequent extensions/follow-ons;
- ii. can support communications using the Transmission Control Protocol/Internet Protocol (TCP/IP) suite or its subsequent extensions/follow-ons, and/or other IP-compatible protocols; and
- iii. offers high level services that are built on top of the communications and related infrastructure that are used or made accessible, either publicly or privately.

According to Eze, Okorafor, and Obi (2013), the internet is the integrating force that has combined computing and communication technology to offer users services at a very low cost. The internet connects millions of computers, computer networks, and computer users on a global scale. On a number of duties relating to employment, the internet offers current information. The employee can complete their tasks quickly thanks to the availability of internet services and good use of them. Internet becomes a driving force in the corporation as the need for office automation increases. In light of this, acquiring internet skills turns into a requirement for running modern offices. The majority of the Civil Service's previously manual tasks have been automated. These include electronic mail, e-payments, and electronic recruitment.

### **Age, Gender and ICT Skills**

Age and gender of the workforce are key determinants of ICT usage. The study uses the genders of male and female civil service employees. Across the gender, generational, and civil service divides, ICT culture exhibits an inferiority complex. According to Martina and Marjolein (2014), the percentage of women working in the ICT industry is not only low, but it is also falling across the majority of western nations. ICT is reportedly uninteresting and unimportant to women. Age could also influence how ICT is used, in a similar vein. Perhaps compared to younger generations, older generations are less open to technology. Older generations could feel compelled to avoid using technology as a result of this. According to Ezewanfor (2015), it is frequently said that older workers have less capacity for learning or that their skills are outmoded, rendering them more vulnerable to technological shocks than younger workers. ICT's acceleration of the aging of abilities serves as a strong indication of this phenomenon. The reality is that older workers are more impacted by a lack of ICT proficiency because they have long since completed their schooling, as opposed to younger workers who have less education.

In the future, ongoing training will be a crucial policy tool to encourage workers to be more productive (Ediagbonya, 2019; Ediagbonya & Ezeani, 2021; Ediagbonya, 2023). These facts are most likely to cause business education graduates' low effectiveness and efficiency, which may have an impact on how well they perform at work. This assumption makes it necessary to evaluate the ICT competencies of business education graduate employees in the Edo State Civil Service. Accordingly, the following null hypotheses were developed for this study:

1. There is no significant difference in the mean rating of male and female of business education graduate workers in Edo State civil service on the extent they acquire database management competencies.
2. There is no significant difference in the mean rating of business education graduate workers in Edo State civil service on the extent they acquire database management competencies based on age.
3. There is no significant difference in the mean rating of male and female of business education graduate workers in Edo State civil service on the extent they acquire internet competencies.
4. There is no significant difference in the mean rating of male and female of business education graduate workers in Edo State civil service on the extent they acquire internet competencies based on age.

## **METHODOLOGY**

The research embarked on the descriptive survey design. The study population consisted of 205 business education graduates workers from 24 ministries in the Edo State. The entire population was manageable to conduct a consensus; thus, there was no sampling applied. A 22-item structured questionnaire validated by two experts; (1) educational evaluation and psychology expert from the Department of Educational Evaluation and Counselling Psychology, and (2) business education expert from the Department of Vocational and Technical Education, Faculty of Education, University of Benin. Reliability test was conducted which yielded Cronbach Alpha values of 0.97 and 0.94 for the two clusters respectively with overall co-efficient value of 0.95.

Descriptive statistics based on mean and standard deviation were utilized to determine the level of ICT skill acquisition of the respondents. The respondents were required to rate each ICT skills in the questionnaire based on a five-point Likert scale ranging from 5-very highly acquired (VHA), 4-Highly acquired (HA), 3-Moderately acquired (MA), 2-Lowly acquired (LA), to 1-Very lowly acquired (VLA) (Nee & Yunus, 2020). The t-test was performed to determine the differences in the mean score of ICT skill acquisition between male and female group as well as age group at 0.05 significance level. The rejection decision was subject to the *p*-value as proposed by Asti, Hasbiah, and Wardhana (2022).

## **RESULTS**

This section is basically designed to display the results arising from the analyses that have been done. The results from the analyses are presented in the Tables 1 – 6. The interpretations of the results have also been presented alongside each of the tables.

Table 1 shows that item number 4 and 5 obtained the mean scores of 2.70 and 2.50 respectively. This results imply that business education graduate workers moderately acquired the items on database management competencies. The remaining of the items which obtained mean scores between 1.90 to 2.40 show that business education graduate workers lowly acquired item numbers 1,2,3,6,7,8,9,10,11. The standard deviation which fall within 0.46 to 0.66 shows homogeneity responses. The overall mean score of 2.24 was obtained for database management competencies meaning that business education graduate workers in Edo State civil service lowly acquired the listed items on database management competencies.

**Table 1: Respondents mean ratings of the extent business education graduate workers acquired database management competencies (N=194)**

S/N	Database management competencies	X	SD	Remarks
1.	Generate formulated text with title and subtitle	2.00	0.63	LA
2.	Execute programme instruction	1.90	0.54	LA
3.	Create payroll for workers of different grade levels	2.00	0.63	LA
4.	Extract and list all records	2.70	0.64	MA
5.	Sort records in ascending or descending order	2.50	0.54	MA
6.	Create report in reporting wizard	2.40	0.66	LA
7.	Create records with design sheet view	2.20	0.60	LA
8.	Migrate data into sharepoint	2.00	0.63	LA
9.	Get data from hypertext	2.20	0.60	LA
10.	Create data base email	2.30	0.46	LA
11.	Manipulate query wizard	2.40	0.66	LA
<b>Cluster Mean</b>		<b>2.24</b>		<b>LA</b>

Note. VHA - Very Highly Acquired, HA - Highly Acquired, MA - Moderately Acquired, LA - Lowly Acquired, VLA - Very Lowly Acquired

Table 2 shows that items 13,14,15,16,18,19,20,21,22 are rated moderately acquired with respective mean scores of 2.80 to 3.51. This indicates that business education graduate workers moderately acquired internet service competencies. The remaining items obtained mean scores ranging from 2.10 to 2.19 respectively are lowly acquired. This means that business education graduate workers lowly acquired competencies in internet service which items are 12 and 17. The standard deviation which fall within 0.30 to 0.81 shows homogeneity responses. The cluster mean score of 3.05 shows that business education graduate workers in Edo State civil service moderately acquire the listed items on internet service competencies.



**Table 2: Respondents mean ratings of the extent business education graduate workers acquired internet competencies (N=194)**

S/N	Internet service competencies	X	SD	Remarks
12	Creating a web page		2.19	0.60 LA
13	Accessing information from internet		3.50	0.81 MA
14	Downloading / uploading information on the web		3.51	0.81 MA
15	Understands and uses key words in a search		3.40	0.49 MA
16	Uses and understands hyperlinks /navigation Buttons		3.20	0.60 MA
17	Interprets features of a new message		2.10	0.54 LA
18	Retrieves and replies to an email		3.50	0.81 MA
19	Refreshing and saving a webpage		2.90	0.30 MA
20	Ability to use shared device within a network		3.00	0.63 MA
21	Creating an e-mail address		2.80	0.60 MA
22	Chooses appropriate sites from a search		3.40	0.81 MA
<b>Cluster Mean</b>			<b>3.05</b>	MA

Note. VHA - Very Highly Acquired, HA - Highly Acquired, MA - Moderately Acquired, LA - Lowly Acquired, VLA - Very Lowly Acquired

### Hypotheses Testing

This section is basically designed to display the results arising from the analyses that have been done. The results from the test of hypotheses are presented in the Tables 3 – 6. The interpretations of the results have also been presented alongside each of the tables.

Results in table 3 shows a significant difference in the mean scores of acquired database management competencies between male and female business education graduate workers in Edo State civil service (t-value=-3.77, p-value<0.00, α=0.05). Therefore, acquired database management competencies are significant difference between male and female workers; thus, the alternative hypothesis was failed to be rejected.

**Table 3: t-test summary of different between male and female respondents mean ratings on the extent they acquired database management competencies (N=194)**

Gender	N	X	SD	a	Df	t-cal	p-value	Remarks
Male	112	2.27	19.21	0.05	192	-3.77	.00	Significant
Female	82	2.17						

Data in Table 4 show that there is a significant difference in the mean score of acquired internet competencies between business education graduate workers in Edo State civil service aged 18 to 40 years and those aged 41 years above (t-cal value=-3.42, d=192, p-value<.00, α=0.05). Therefore, the alternative hypothesis was failed to be rejected.

**Table 4: t-test summary of difference between ages of 18-40 and 41-60 respondents mean ratings on the extent they acquired databased Management competencies (N=194)**

Age	N	X	SD	a	Df	t-cal	p-value	Remarks
18-40 years	118	2.15	.20.16	0.05	192	-3.42	.00	Significant
41 years and above	76	2.34						

Data in Table 5 show that the mean score of male acquired internet service competencies significantly different from the female counterpart (t-cal=-3.11,df=192, p-value=.02,  $\alpha=0.05$ ). Therefore, the alternative hypothesis was failed to be rejected.

**Table 5: t-test summary of different between male and female respondents mean ratings on the extent they acquired internet service competencies (N=194)**

Gender	N	X	SD	a	Df	t-cal	p-value	Remarks
Male	112	3.18	.24	0.05	192	-3.11	.02	Significant
Female	82	3.08	.20					

However, Table 6 shows that the mean score of acquired internet service competencies for civil service ages between 18 to 40 years old does not significantly differ from those who aged above 40 years old (t-cal= 2.67, df=192, p-value=.50,  $\alpha=0.05$ ). Therefore, there was no significant difference between the two groups and the alternative hypothesis was rejected.

**Table 6: t-test summary of difference between ages of 18-40 and 41-60 respondents mean ratings on the extent they acquired internet service competencies (N=194)**

Age	N	X	SD	a	Df	t-cal	p-value	Remarks
18-40 years	118	3.13	.21	0.05	192	2.67	.50	Not Significant
41 years and above	76	3.15	.25					

**DISCUSSION**

The study's findings showed that Edo State public service employees with a business education had poor database administration skills. This conclusion is in line with that of Ezenwafor (2020), who found that workers with a background in business education pick up database management skills on a basic level. Eze (2013) asserts that in order to maintain records electronically in the civil service, business education graduates needed database administration skills. In order to be competitive globally, Ovbiagele, Mgbonyebi, and Olaniye (2019) said that

business education graduates need database administration skills for office e-records management. Database management skills increase the productivity of administrative workers, as claimed by Okolocha and Nwadiani (2015).

The survey also showed that there was a substantial disparity in the level of database management competency obtained by men compared to women in the Edo State government service. Additionally, the mean score of database management skills among business education graduate employees from different age groups significantly differed too. Male and female business education instructors, according to Emeasoha's (2015) analysis, only learned how to operate computers to a high degree, while they learned how to network and use media to a lesser extent. Behaghe and Greenan (2014) argued that the literature provides evidence that the rapid growth of ICT had negatively affected the demand for older workers.

Additionally, this study discovered that business education graduates with jobs in the Edo State government service had gradually picked up skills for using the internet, including downloading information, accessing websites, using search terms, and understanding navigational buttons and hyperlinks. Additionally, they have developed strong online skills that allow them to retrieve and respond to emails. According to Roussey (2018), every prospective employee needs online competencies for better job performance. In support, Zohar (2020) argued that civil servants should be proficient with the internet, including the skills necessary to install navigational software on computers, back up informational data and websites, protect devices and websites, and more. It can significantly affect one's productivity and stress levels to be able to use the internet to locate information when needed. It is well worth investing in an internet system to ensure that one's job runs properly and to help one save time and work more productively. Nwaokwa and Okoli (2017) made the claim that ICT has impacted business education personnel' performance in a variety of ways, including through the quick delivery of information and the correctness and efficacy of their job.

The survey also showed that there was no discernible difference in the responses of male and female business education employees in the Edo State civil service about the level of their internet competency acquisition. Additionally, there were no discernible differences among business education professionals in Edo State in terms of the mean ratings on the degree to which they gained internet competences depending on age in the study's focus. Therefore, it was consistent that the null hypothesis was upheld.

## **CONCLUSION**

Based on the findings, it can be said that business education professionals are unable to operate successfully and properly without strong hands-on ICT capabilities, with an emphasis on the internet and data management systems, which are necessary for effective job performance in the civil service. In conclusion, ICT equipment is crucial for enabling business education professionals to demonstrate the skills required for successful job performance in an environment where everything is digitally driven, both in the office and in the business environment.

## **RECOMMENDATIONS**

Through this study, the researchers proffered that the government should purchase and install new ICT facilities to increase their usage by workers for enhanced efficient, effectiveness and positive productivity. Moreover, government servants with business education background should receive training from competent business course instructors to ensure that necessary ICT skills could be acquired. On that note, business course instructors should be updated with the state-of-the-art ICT. In addition, the government should provide continuous compulsory training and retraining of civil service servants to help them equip themselves so that they could perform their jobs in a more effective manner through the use of ICT.

## **REFERENCE**

- Aghatise, J. O. (2015). Integrating the internet in the business education programm. *Multidisciplinary Journal of Science and Technology*, 2(3), 35-46.
- Akusa, P. A. (2022). *Basic Information and communication technology skills*. National Judicial Institute. Abuja
- Bahaghel, I, & Greenan, N. (2014). *Training and age-biased technical change: Evidence from french micro data*. Context New York: McGrew-Hill Book
- Chukwunonso, F. (2014). *Evaluating ICT for effective implementation in tertiary education in Nigeria*. Paper presented at the 2nd Annual Science and Science Education Conference, Yola.
- Asti, D. W., Hasbiah, S., & Haeruddin, M. I. W. (2022). The Influence of Price and Product Quality on Product Purchasing Decisions at Pt Intan Pariwara. *Journal of Scientific Research, Education, and Technology*, 1(2), 238-258.
- Digital Bridge Institute, (2015). *Digital bridge institute graduates another batch of civil servant trainees*. Retrieved from <http://fmi.gov.ng/digital-bridge-institute-dbi-graduates-another-batch-of-civil-servant-trainees>
- Ediagbonya, K. (2016). Business Education Students' Perceptions of the Extent of Utilization of M-Learning in Teaching and Learning of Business Education in Edo State. *Journal of Educational Policy and Entrepreneurial Research*, 3(7), 10-17.
- Ediagbonya, K. (2019). Relationship between training and development and business educators' perceived job performance and retention in Edo and Delta States. *AAU Journal of Business Educators*, 1(1), 11-19.
- Ediagbonya, K., & Ezeani, N. S. (2021). Training and development as predictors of business educators' perceived task and contextual job performance in colleges of education in Edo and Delta States. *Nigerian Journal of Educational Management*, 5(1), 315-325.
- Ediagbonya, K. (2023). Human resource management practices as predictors of business educationists' perceived contextual performance in Edo and Delta States. *International Business Education Journal*, 16(1), 1-11.

- Edun, H. J., & Soyebi, G. A. (2022). Relationship between information and communication technology (ict) literacy and competencies and public universities professional secretaries' job performance. *International Business Education Journal*, 15(1), 120–130. <https://doi.org/10.37134/ibej.vol15.1.9.2022>
- Egodawatte, G. (2018) An analysis of the competency-based secondary mathematics curriculum in Sri Lanka. *Educational Research for Policy and Practice*, 13(1) , 45-63.
- Eneasoba, G. (2015). Assessment of information and communication technology competencies possessed by office technology and management lecturers in tertiary institution. *Journal of Information Technology Impact*, 3(2), 67-76
- Eze, T. I., Okorafor, A. O., & Obi, M. N. (2013). Internet/networking competencies needed by tertiary technical teachers in South East, Nigeria. *Delsu Journal of Educational Research and Development*, 12(1), 14-32.
- Eze, T.I. (2013), Pedagogical information and communication technology competencies needed by Tertiary Technical Teachers in South-East Nigeria. *Journal of Vocation and Adult Education*, 8(1), 26-38
- Ezemoyih, C. M. & Okafor, N. (2013). Evaluation of information and communication Technology Skills needed by accounting education lecturers in Nigeria. *Business Education Journal*, 7(2), 110-119
- Ezenwafor, J.I., (2015). Skills needed by confidential secretaries for effective performance as perceived by top civil servants. 4(1): 15-22 *African Journal of Interdisciplinary Studies*, Forbes Technology Council Innovation.
- Federal Networking Council (1995). *Resolution of the US. Federal Networking Council*. <http://www.fnc.gov>.
- Idowu, B. & Ogunbodede, E. (2013). Information and communication Technology in Nigeria: The health sector experience. *Journal of information Technology Impact*, 3(2), 69-76.
- Jameel, A. S., & Ahmad, A. R. (2020). Factors impacting research productivity of academic staff at the Iraqi higher education system. *International Business Education Journal*, 13(1), 108–126. <https://doi.org/10.37134/ibej.vol13.1.9.2020>
- Kuutti, K. (1996). Activity theory as a potential framework for human–computer interaction research. In B.A.Nardi (Ed.), *Context and consciousness: Activity Theory and Human–Computer Interaction* (pp.17–44).Cambridge: MIT press.
- Martina, R. M. & Marjolein, D. (2014). *Participation of females in ICT professional careers*. New York: McGraw-Hill
- Nana, Y. A. & Samuel, E.E. (2014), Use of information and communication technology(ICT) in tertiary education in Ghana. A case study of electronic learning (e-learning ) international. *Journal of Vocational Informational and Communication Technology*, 2(7), 82-89
- Nardi, B.A. (1996). Activity theory and human computer interaction. In B.A. Nardi (Ed), *Context and Consciousness: Activity Theory and Human–Computer Interaction* (pp.7–16). Cambridge: MIT Press.

- Nee, C. C., & Yunus, M. M. (2020). RollRoll dice: An effective method to improve writing skills among Year 3 pupils in constructing SVOA sentences. *Universal Journal of Educational Research*, 8(6), 2368 - 2382. DOI: 10.13189/ujer.2020.080621.
- Nigeria Internet Group (1995). *Internet connectivity in Nigeria: A way forward*. The Lagos Internet Expo '95 Proceeding, Lagos, Nigeria.
- Nwaokwa, E. & Okoli, B. E. (2017). Information and communication technology on influence performance of secretaries in government ministries in Nasarawa State, North-Central Nigeria. *Research Journal of Information Technology*, 4(3), 93-97
- Okalocha, C. C. & Ezike, N. N. (2018). Extent of information and communication technology skills possessed by office technology and management graduates workers in the civil service of Enugu State. *NAU Journal of Technology and Vocational Education*, 3(1), 11-23.
- Okolocha, C.C. & Nwadiani, C.O. (2015). Assessment of utilization of ICT resources in teaching among tertiary institution business educators in south-east Nigeria. *Journal of Education and Learning*, 4(1), 192-218
- Olaitan, S.O. (2003). *Understanding curriculum*. Nsukka: Nudim Printing and Publishing Company.
- Oliva, P.F. (2002). *What are the essential generic teaching competences: Theory into practice*, 19, 117 –121.
- Olowookere, S. O., & Iyiola, M. A. (2015). Application of information and communication technology (ICT) in the teaching of business education subjects. *Association of Business Educators of Nigeria (ABEN) Conference proceedings*, 2(1), 48-56.
- Olugbenga, P. F. (2015). *Civil service administration and effective service delivery for development*. Retrieved from <http://www.headofserviceekite-state.gov.ng>
- Omeje, T. S. (2014). Imperatives for reforming the secretarial studies curriculum in Nigeria. *Business Education Journal*, 2(1), 27-37.
- Ovbiagele, A. O., Mgbonyebi, D. C. & Olaniye V. (2019). Electronic records management competencies required of polytechnic office technology and management graduates in south-south Nigeria. *Nigerian Journal of Business Education*, 6(1), 464-472.
- Roderick, H. (2013). *Integrating the internet into business education program*. Computer Science/Business Education teacher, Alton C. Crews middle school: GS Dept-Home.
- Roussey, B. (2018). Must-have cybersecurity Skills that make you an in-demand expert. retrieved from: <http://techgenix.com/cybersecurity-skills/>
- Tise J.O. (2014). The Operational definition of competency-based education. *Journal of Competency Based Education*, 1(2) 78-85
- Uden, L. (2007). Activity theory for designing mobile learning. *International Journal of Mobile Learning and Organization*, 1(1), 81-102.
- Vygotsky, L. S. (1978). *Mind in Society: The Development of Higher Psychological Processes*, Cambridge: Harvard University Press.
- Yusuf, M. O. & Onasanya, S. A. (2013). Information and communication Technology ICT and teaching in tertiary institutions. *Journal of Science and Technology*, 2(7), 29-40.

Zohar, A. (2020). Workplace (Cyber) Safety: Why it needs to be part of the company Mission.