

**EXTENT OF INFORMATION AND COMMUNICATION TECHNOLOGY
SKILLS POSSESSED BY OFFICE TECHNOLOGY AND MANAGEMENT
GRADUATE WORKERS IN THE CIVIL SERVICE OF ENUGU STATE**

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Abstract

The study determines the extent information and communication technology (ICT) skills possessed by office technology and management graduate workers in the civil service of Enugu State. Two research questions guided the study and four null hypotheses were tested. Descriptive survey design was adopted for the study. The population was 200 Office Technology and Management (OTM) graduate workers from 27 ministries in Enugu State. No sampling was taken since the population size was manageable. A five point rating scale questionnaire containing 22 items in two clusters was used for data collection. The instrument was validated by three expert-one in measurement and evaluation and two in business education from the Faculty of Education, Nnamdi Azikiwe University, Awka. The reliability of the instrument was ascertained using test-retest which yielded co-efficient values of 0.61 and 0.90 for clusters B1 and B2 with an overall reliability co-efficient value of 0.76. Mean and standard deviation were used to answer the research questions and determine the homogeneity of the respondents while t-test was used to test the null hypotheses at 0.05 level of significance. The findings revealed that the subjects lowly possessed internet service skills and moderately possessed file management skills. There was a significant difference in the mean ratings of male and female respondents on possessed internet service skill but no significant difference on possessed file management skills. Based on the findings, the researcher concluded that OTM graduate workers cannot perform effectively adequately without possessing relevant ICT skills. It was recommended among others that government ministries should procure the latest model of ICT facilities to increase their usage by workers for enhanced efficiency, effectiveness and productivity.

Keywords: Information and communication technology (ict) skills, office technology and management graduates, civil service.

Introduction

The unprecedented technological advancement witnessed across the world has radically changed the old ways of doing things. Revolution in Information and Communication Technology (ICT) is by far the most widely felt of the advancements,

hence, the general consensus that the world is in ICT age (information age or jet age). According to Nwabueze (2011) ICT is an umbrella term that includes any communication device or application, encompassing radio, television, cellular phones, computer and network hardware and software, satellite systems as well as various services and applications associated with them such as video conferencing and distance learning. ICT is often spoken of in a particular context such as ICT in education, health care, libraries, civil service among others.

The impact of new technologies is felt by organizations in every aspect. Computing technology, communication technology and mass storage technology are some of the areas of continuous development that have reshaped the way government offices and organizations access, retrieve, store, manipulate and disseminate information to users. The prevalence and rapid development of ICT has transformed human society from the information technology age to the knowledge age (Yusuf & Onasanya, 2013). In this regard, ICT is viewed as innovations that enable graduate workers in the civil service to perform their office tasks effectively and efficiently.

Office Technology and Management workers in the civil service are one of the staff responsible for public administration of the government of the country. It excludes the legislative, judicial and military branches (Ogidefa, 2008). Members of the civil service have no official political allegiance and are not generally affected by changes in government. The Nigeria civil service consists of workers in government agencies other than military. Most employee/career civil servants in the Nigerian ministries are progressing based on qualification and seniority. According to Olugbenga (2015), civil service is either a branch of governmental service in which individuals are employed or hired on the basis of professional merit as proven by competitive examination or the body of workers in any government agency apart from the military which is a separate extension of the national government.

Office technology and management graduate workers represent a holistic nomenclature ascribed to secretaries who perform office managerial services with modern automated machine such as computer, fax machine, addressing machine, scanning machine, printing machine, laptops, android phone among others. OTM graduate workers cannot perform effectively without adequate possession of relevant ICT skills and provision of the resources in government establishments. This is because the speed at which technology is evolving and changing methodology of office work is now on the increase and OTM graduate workers in Enugu State civil service are challenged the more. As a result of this, they are expected to assume greater responsibilities using the new technologies. The existing occupations and rising job requirements make retraining very necessary for all categories of workers including OTM graduate workers in diverse organizations. Therefore, only re-trained workers can fill the gap in manipulating the modern technologies for effective performance. The ability of OTM workers in civil service to effectively carry out their office tasks using ICTs depends on the level they possess ICT skills.

Skill is a person's ability to perform a given task well as a result of training and practice. Obi (2015) defined skills as manual dexterity acquired through repetitive performance of operations. Skills are concerned with what people do (their work), how they do it (method and technology used) and what they achieve (their results). According to Idowu and Ogunbodede (2008), ICT skills involve using computer based technologies to manipulate, create, store and retrieve information, express ideas and communicate with others. ICT skills in the context of this study refer to the ability of OTM graduate workers to effectively manipulate and deliver office tasks using ICT gadgets. ICT skills expected of OTM graduate workers include internet service and file management among others which were not included in the old curriculum of business education.

The internet is the most and fastest growing part of the age of ICT. Internet is the abbreviated form of international communication (computer) network. The inception of the internet actually began over 25 years ago as a United States defense departmental project. The internet a global computer network that allows millions of computers around the world to communicate through the telephone system and communication lines. It is also referred to as web and digital information superhighway (Roderick, 2013). The impact of the internet is felt everywhere in the society and it has become an everyday household term. It is composed of many interconnected computer networks. Each network may link tens, hundreds or even thousands of computers, enabling them to share information and processing power. The Internet has made it possible for people all over the world to communicate with one another effectively, inexpensively and to have free access to useful data for further processing. The internet is one of the computer and multi-media skills that have brought revolution to the entire educational system in recent times. It is another important skill area that is required by OTM graduate.

File management describes the fundamental methods for managing, storing and handling files (Bartlett, 2015). By using appropriate file and folder naming strategies along with good metadata practice and catalog soft, the person can make the most of the image collection. The data used in computer operation are kept in a hierarchical file system in which directories have files and subdirectories beneath them. Although one's use the computer operating system to keep our image data organized, how one's name files and folders, how one's arrange these folders are the fundamental aspects of file management. Johnson (2009), defined file management as organizing and keeping track of files and folders, helping the individual to stay organized so that information is easily located. A folder is a container for storing programs and files. It is similar to a folder in a file cabinet. As with a file cabinet, working with poorly managed files is like looking for a needle in a haystack. It is frustrating and time-consuming to search through irrelevant, misnamed and out-of-date files to locate the one needed. Effective file management involves a number of tasks including creating folders, renaming folders and files, storing, sorting and handling computer files (Pacchiano, 2011).

The work of Nigerian civil servants involves high level of documentation and information processing, storage, and retrieval. The information intensiveness of a civil servant's responsibility is that tools and technologies would be used to speed up the documentation, management and information handling are not only important but professionally necessary. The value of accuracy, correctness, completeness, relevance and timelessness in the area of documentation, data processing, communication, storage and retrieval system by the aid of ICT gadgets almost effortlessly and with jet speed has made ICT very important for workers in civil the service. As a result of the numerous benefits of ICT, the Federal Republic of Nigeria (FRN, 2013) imbibed ICT skills into the workforce, by currently organizing in-service courses for workers in the Nigerian civil service to update their ICT skills. Among these workers are male and female OTM graduates who are working in government offices. The training is being carried out in partnership with a computer institute called Digital Bridge Institute at the Federal Capital Territory, Abuja. The Federal Government has decided that the training will be a regular and continuous one (Digital Bridge Institute, 2015).

The influencing factors on information and communication technology are gender and age of the workers. Gender in this study refers to male and female civil service personnel. There is uneven embracement of ICT culture across the gender and generational divide which may be attributed to certain factors including attitudes of civil service personnel. Martina and Marjolein (2014) stated that in most western countries, the participation of females in ICT professional careers is not only low but is also still falling. Females seems to be shying away from ICT viewing it is boring and irrelevant. Similarly, age may also be a determinant factor in the use of ICT. Probably the older generations do not welcome technology as much as the younger generation. This may compel older generation to resist the use of technology. Katrin (2010) noted that it is often argued that the skills of older workers are outdated, making them more exposed to technology shocks than younger workers; or that older workers have lower learning capabilities. Underlying this process is the fact that ICT accelerates skill obsolescence. Given that older workers have completed their education less recently than younger ones, they are more affected by the lack of ICT competence.

Consequently, continuous training becomes a key policy instrument to foster the employability and retention of older workers. It is most likely that these issues may result in low effectiveness and efficiency of the OTM workers which may affect their performance on the job. Based on this background, it becomes pertinent to assess the ICT skills of OTM graduate workers in Enugu State Civil Service.

Statement of the Problem

Developments and transformations in office technology are increasing on daily basis and making office automation more complex, with negative impact on the performance of office workers including office technology and management (OTM)

graduates. Tunji (2014) observed that the central problem of Nigeria's civil service is its inability to respond to serious changes. Many of the OTM graduate workers and office technologists in the civil service of today still find it difficult to effectively operate ICT facilities (Ogidefa, in Akintode, 2013). Since the key feature of modern technology is the ability to handle information and data, it becomes a huge problem that must be resolved if OTM graduate workers are to fully optimize the use of ICT. Some of the challenges include but not limited to miscommunication/misrepresentation of data due to preventable typographical errors, under-utilization of ICT facilities and platforms resulting to serious productivity loss, unnecessary loss of stored data/files, compromise of classified database due to poorly managed security firewall which can have damaging consequences on government business, poor transmission of information required for smooth running of government to the grassroots.

In all these, the societies are at the receiving end, suffering the consequences. It is therefore these problems that prompted the researcher to assess the ICT skills possessed by OTM graduate workers in Enugu State civil service with the view to identifying areas that need improvement for objective remedial actions.

Purpose of the Study

The main purpose of this study was to determine the extent of information and communication technology (ICT) skills possessed by office technology and management (OTM) graduate workers in Enugu State civil service. Specifically, this study determined the extent of:

1. internet service skills possessed by OTM graduate workers in Enugu State civil service.
2. file management skills possessed by OTM graduate workers in Enugu State civil service.

Research Questions

The following research questions guided the study:

To what extent do:

1. Office technology and management graduate workers in Enugu State civil service possess internet service skills?
2. Office technology and management graduate workers in Enugu State civil service possess file management skills?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

1. There is no significant difference in the mean ratings of male and female OTM graduate workers in Enugu State civil service on the extent they possess internet service skills.
2. There is no significant difference in the mean ratings of OTM graduate workers in Enugu State civil service on the extent they possess internet service skills based on age.
3. There is no significant difference in the mean ratings of male and female OTM graduate workers in Enugu State civil service on the extent they possess file management skills.
4. There is no significant difference in the mean ratings of OTM graduate workers in Enugu State civil service on the extent they possess file management skills based on age.

Method

Descriptive survey research design was adopted for the study. The population for the study was 200 Office Technology and Management (OTM) graduate workers from the 27 ministries in the State. The entire population was studied without sampling because the size was manageable. A 22-item structured questionnaire validated by three experts one in educational measurement and evaluation from the Department of Educational Foundation and two in business education from the Department of Technology and Vocational Education, Faculty of Education, Nnamdi Azikiwe University, Awka was used for data collection. The internal consistency of the instrument was established using test-retest method which yielded reliability co-efficient values of 0.61 and 0.90 for the two clusters respectively with an overall co-efficient value of 0.76.

Descriptive statistics of mean and standard deviation were used to answer questions and determine homogeneity of the respondents. Decision on the questionnaire items and research questions was interpreted relative to the item and cluster mean based on the real limit of numbers on a five-point scale as follows: Very highly possessed (VHP), Highly possessed (HP), Moderately possessed (MP), Lowly possessed (LP) and Very lowly possessed (VLP). The t-test was used to test the null hypotheses at 0.05 level of significance. Where the calculated t-value was less than the critical t-value, it meant that there was no significant difference and the hypothesis was not rejected. Conversely, where the calculated t-value was equal to or greater than the critical t-value, it meant that there was significant difference and the hypothesis was rejected.

Results**Table 1:****Respondents mean ratings of the extent OTM graduate workers possess internet service skills.****N=194**

S/Internet Service Skills Possessed by OTM workers		SD	Remarks
1. Search and browse via the internet	2.00	0.63	Lowly Possessed
Operatesearch engines	1.90	0.54	Lowly Possessed
3. Have tutorial online	2.00	0.45	Lowly Possessed
4. Print from web pages	2.20	0.60	Lowly Possessed
5. Cut and paste texts	2.70	0.64	Moderately Possessed
6. Save images from web pages	2.40	0.66	Lowly Possessed
7. Chart online with people	2.10	0.54	Lowly Possessed
8. Communicate and work together with other workers	2.20	0.60	Lowly Possessed
9.Send and receive mails	2.50	0.50	Moderately Possessed
10.Download relevant materials from internet	2.30	0.46	Lowly Possessed
11. Create web pages	2.20	0.60	Lowly Possessed
Cluster Mean	2.23		Lowly Possessed

Table 1 shows that item numbers 5 and 9 have mean scores of 2.50 and 2.70 respectively. This shows that OTM graduate workers moderately possess the listed items on internet service skills. The rest of the items with mean scores ranging from 1.90 to 2.40 showing that OTM graduate workers lowly possess item numbers 1, 2, 3, 4, 6, 7, 8, 10 and 11. The standard deviations which fall between 0.45 to 0.66 shows homogeneity of responses. The cluster skills. The standard deviation which falls between 0.45 to 0.66 shows homogeneity of responses. The cluster mean score of 2.23 shows that OTM graduate workers in Enugu State civil service lowly possess the listed items on internet service skills.

Table 2: Respondents mean ratings of the extent OTM graduate workers possess file management skills N =194

S/N	File Management Skills Possessed by OTM workers	\bar{x}	SD	Remarks
1.	Manage data	3.00	0.63	Moderately Possessed
2.	Create folders	2.90	0.30	Moderately Possessed
3.	Make a query request	3.40	0.66	Moderately Possessed
4.	Store and handle files	3.20	0.75	Moderately Possessed
5.	Produce reports on one file at a time	2.90	0.70	Moderately Possessed
6.	Name files and folders	3.00	0.63	Moderately Possessed
7.	Select objects	3.40	0.49	Moderately Possessed
8.	Drag and drop folders	3.20	0.60	Moderately Possessed
9.	Make use of pop-up menus	3.50	0.81	Highly Possessed
10.	Rename files	3.20	0.60	Moderately Possessed
11.	Get online help on the object or file	2.80	0.60	Moderately Possessed
Cluster Mean		3.14		Moderately Possessed

Table 2 shows that the respondents highly possess item numbers 9 on file management skills. The item numbers 1, 2, 3, 4, 5, 6, 7, 8, 10 and 11 are rated moderately possessed with respective meanscores of 2.80 to 3.40. This indicates that OTM graduate workers moderately possess file management skills. The standard deviations which fall between 0.30 to 0.81 shows homogeneity responses. The cluster mean score of 3.14 shows that OTM graduate workers in Enugu State civil service moderately possess the listed items on file management skills.

Testing of Hypotheses

Table 3: t-test summary of difference between male and female respondents mean ratings on the extent they possess internet service skills N=194

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

Data in Table 3 show that there is a significant difference in the mean ratings of male and female OTM graduate workers in Enugu State civil service on the extent they possess internet service skills. This is shown by the t-cal value of -3.77 at 192 degree of freedom and the P-value of (.00) which is less than the 0.05 level of significance.

Therefore, there is a significant difference between the two groups and the hypothesis is rejected.

Table 4: Summary of t-test summary of difference between age of 18-40 and 41-60 respondents mean ratings on the extent they Possess internet service skills N=94

Age	N	SD	α	Df	t-cal	p-value	Remarks	
18 – 40 years	118	2.15	.20	16	0.05	192	.00	Significant
41 years and above	76	2.34						

Data in Table 4 show that OTM graduate workers in Enugu State civil service aged 18 to 40 years and those aged 41 years and above differ significantly in their mean ratings on the extent they possess database management skills. This is shown by the t-cal value of 0.97 at 192 degree of freedom and the P-value of (.00) which is less than the 0.05 level of significance. Therefore, there is a significant difference between the two groups and the hypothesis is rejected.

Table 5: Summary of t-test difference between male and female respondents mean ratings on the extent they possess file management skills N=194

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

Data in Table 5 show that there is a significant difference in the mean ratings of male and female OTM graduate workers in Enugu State civil service on the extent they possess file management skills. This is shown by the t-cal value of -3.11 at 192 degree of freedom and the P-value of (.02) which is less than the 0.05 level of significance. Therefore, there is a significant difference between the two groups and the hypothesis is rejected.

Table 6: Summary of t-test difference between age of 18-40 and 41-60 respondents mean ratings on the extent they Possess file management skills N=194

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

Data in Table 6 show that OTM graduate workers in Enugu State civil service aged 18 to 40 years and those aged 41 years and above do not differ significantly in their mean ratings on the extent they possess file management skills. This is shown by the t-cal value of 2.67 at 192 degree of freedom and the P-value of (.50) which is greater

than the 0.05 level of significance. Therefore, there was no significant difference between the two groups and the hypothesis is not rejected.

Discussion

Findings of the study revealed that OTM graduate workers in Enugu State civil service lowly possessed internet service skills. The outcome of this study agreed with the findings of Onojaife (2008) who stated that people live in the information age where knowledge is power. The internet therefore, helps users in three basic ways: to get information; to provide information; and to compile information. The ability to operate a computer system to perform job related tasks, use web browsers and searching on the internet to retrieve information and communicating with others by sending and retrieving e-mail is an essential part that is needed in everyday skills especially those in organizations.

The study also revealed that there was a significant difference among the ratings of male and female OTM graduate workers in Enugu State civil service on the extent they possessed internet service skills. It followed therefore that the null hypothesis was not accepted. In addition, OTM graduate workers in Enugu State civil service differed significantly in their mean ratings on the extent they possessed internet service skills based on age in the area of study. This finding is supported by Emeasoba (2015) who opined that male and female OTM lecturers possessed only computer operation competencies to a high extent and networking, telecommunication and media competencies to a low extent. In the area of age, Behaghel (2010) held that there is evidence in the literature that the demand for older workers has been negatively affected by the rapid development of Information and Communication Technologies (ICT).

It was also found out the study that OTM graduate workers in Enugu State civil service moderately possessed file management skills for managing data, creating folders, making a query request, storing and handling files, naming and selecting files and folders, renaming files, getting online help on the file among others. They also highly possessed file management skills for making pop-up menus.

The findings agree with Pacchiano (2011) who opined that effective file management involves a number of tasks including creating folders, renaming folders and files among others. Being able to keep track of and find computer files when one's need them can make a big difference to one's productivity and stress levels. To help one save time and work more effectively, it is well worth putting a file management system in place to help one's business run more smoothly. In support of this, Nwaokwa and Okoli (2012) stated that ICT has influenced the performance of OTM workers in much different ways: speedy delivery of information, accuracy and effectiveness at work.

The study also revealed that there was no significant difference among the responses of male and female OTM graduate workers in Enugu State civil service on

the extent they possessed file management skills. In addition, OTM graduate workers in Enugu State civil service did not differ significantly in their mean ratings on the extent they possessed file management skills based on age in the area of study. Therefore, it followed that the null hypothesis was not rejected. This was supported by Olokoba, Abdullahi and Omosidi (2014) who opined that the ICT training(s) teachers received do not have desired impact on instructional usage.

Conclusion

Based on the findings, it can be concluded that OTM graduate workers cannot perform effectively without a good hands on ICT skills required especially the internet service skills which is required for effective performance in the office. It is concluded that the provision of ICT equipment is very paramount to enable OTM graduate workers acquire the necessary skills for effective job performance where everything is technologically driven both in the office and in the business world.

Recommendations

Based on the findings of this study, the researchers proffered the following recommendations:

1. Government ministries should procure the latest models of ICT facilities to enhance OTM functions in offices. Adequate provision of latest ICTs facilities will not only motivate the workers but will also increase their efficiency, effectiveness and productivity.
2. Mandatory training and re-training of office technology and management workers should be instituted by the government. This will help to equip OTM workers with the latest skills that will help them to perform effectively in the office using latest ICT equipment.
3. OTM workers in the civil services should be taught by skilled business educators. This could be possible by training more business educators with latest ICT facilities while in school.

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