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Graduates' E-Competencies Required For Maximum Productivity in the 21st Century Office

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Abstract

The study examined graduates' e-competencies required for maximum productivity in the 21st century office. One purpose of the study, a corresponding research question, and one null hypothesis guided the study. A descriptive research survey design was used for the study. The sample of the study consisted of three hundred and twenty-five (325) office administrators in universities in south-west Nigeria. The instrument for data collection was a structured questionnaire titled Graduates' E-Competencies Required for Maximum Productivity scale (GECRMP). The instrument for the study was validated by three experts, two from the department of business education and one from measurement and evaluation, all from the faculty of vocational and science education at the University of Calabar, Calabar. The reliability of the instrument was ascertained through a pilot study involving office administrators in South-South, Nigeria. The data collected from the respondents in the pilot study was used to compute the reliability of the instrument. The Cronbach alpha SPSS statistical procedure was used to determine the internal consistency of the instrument, which yielded an overall consistency of 0.81. The instrument for the study has two parts. Part one sought information on the demographics of the respondents. Mean and standard deviation were used to answer the question, and the t-test statistic was used to test the hypothesis. The hypotheses were tested at the 0.05 level of significance. The results showed that reprographics competencies were needed by office administrators for effective discharge of their office responsibilities. Based on the findings, the study recommended, among others, that office administrators should be trained and re-trained in reprographics productivity in modern office activities and that office administrators needed to be equipped with reprographics competencies for proficiency in proofreading documents.

Key: words: Graduates,' E-competencies, Required, Maximum and Productivity

Introduction

Creating the 21st-century workplace entails far more than simply replacing typewriters with computers and notepads with tablets. Modern offices are becoming increasingly streamlined, with everything available to employees online. Some workplaces have bring-your-own-device policies in place so that employees can use a computer that they are familiar with. True tech-savvy offices will almost certainly have interactive boards, advanced conferencing platforms, and online professional development tools. In general, modern offices are willing to invest in technology so that employees can connect and collaborate more efficiently and effectively (Atah, Ukah and Crossdale, 2019).

An office administrator is an executive's assistant who also has office competencies and the ability to take on responsibility without direct supervision. The office administrator takes initiative, makes decisions within the scope of his or her authority, and uses sound judgment (Agim, Ochui and Atah, 2020). A qualified office administrator must have a broad knowledge of business insight, as well as versatile knowledge in accounting, personnel, office practice, and communication, as well as knowledge of how all departments within the organization where he or she works operate. In contrast, an untrained administrator knows only shorthand, typewriting, and basic office procedures. The administrator's employability prospects are heavily reliant on the work skills acquired for employment (Bessong, Atah and Ititim, 2019).

Maximum job productivity is the assessment of whether a person performs a job well. Maximum productivity is how one performs when exerting as much effort as possible. Workers usually exhibit maximum productivity when they are being observed (Bessong, Atah and Ititim, 2022). Therefore, some conditions that tend to foster maximum productivity include work samples (often given to a potential employee during an interview), manager evaluations, and job knowledge tests. The results from these situations are the ones that are most accessible to supervisors; however, they are usually not reflected in an employee's typical, or day-to-day, performance. Vander-Byl and Shortridge (2012) describe maximum job productivity as an individual-level variable, or something a single person does. This differentiates it from more encompassing constructs such as organizational productivity or national performance, which are higher-level variables. For individuals, teams, and organizations, achieving maximum productivity means understanding what those attributes are, how much of each one has, and how to harness them most efficiently (Abang and Atah, 2022).

Reprographics is the multiple reproduction of images. Reprographics today involves the use of two primary types of equipment: copiers and duplicators. Copiers use an image-forming process similar to that of a camera to create copies directly from existing originals. Duplicators make copies from masters on special paper that must be prepared before copies are reproduced.

Jacci (2013) defined reprographics as a general term for the reproduction of documents or images, especially those that are virtually undistinguishable from the original. The author further stated that reprographics can be produced by mechanical, electronic, or photographic means such as photocopying, xerography, scanning, digital printing, and photocopying. In the opinion of Ikelegbe (2016), reprographics can be defined as the ability to reproduce documents of any kind. The author further stated that it is the ability to produce many copies of an original document. The equipment varies in size depending on the volume of multiple

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copies to be made. Equipment under reprography includes photocopiers, cyclostyling or mimeograph machines, and litho presses.

Micrographics is an integral part of reprographics and very important to most modern organizations. However, micrographic technology has provided valuable tools for the improvement of record management. The use of micrographics solves the problems of preservation and distribution, promotes economy in storage, and is easily integrated into systems based on the latest electronic technology (Saffady, 2018). The author stated that creating microfilm copies is a convenient method of producing copies of vital records, as it is a proven technology with established standards that assure media quality and stability.

Micrograph entails the photographic reduction of images of text into slide stripes. Office documents can be assembled at the end of the year and reduced into slide stripes with the use of microfilm. This helps an organization save a lot of storage space by turning text into slide stripes. Office documents can be assembled at the end of the year and reduced into slide stripes with the use of microfilm. This helps an organization save a lot of storage space. When the administrator wants to retrieve particular information, he needs to indicate the day, month, and year of the document to view the information from the microfilm and to print the document when needed. Image Processing System Furthermore, this is another fast-growing area of office automation. It allows end users to electronically capture, store, process, and retrieve images of documents that may include numeric data, text, handwritten graphics, and photographs. Electronic document management may interface with other electronic document preparation systems such as word processing, desktop publishing, electronic mail, and voice mail. However, one of the fastest growing application areas is transaction document imaging, where documents such as customer correspondence, sales orders, invoice application forms, and service requests are captured electronically and routed to end users throughout the organization for processing (Ayandele and Adeoye, 2017).

According to Oliverio (2017), image processing is an effective way to store documents that must be seen in their original form to verify information. An image processing system uses software and special equipment, including scanners and optical disks, to store an exact copy of a paper document. The goal of presentation graphics is to provide information in a graphical form that helps end users and managers understand business proposals and productivity and make better decisions about them. This includes the use of line and bar graphs, pie charts, and pictorial charts using a variety of symbols. Instead of being overwhelmed by a large amount of computer-produced data, graphic displays can assist managers in analyzing and interpreting the information presented to them. The presentation of graphics does not totally replace reports and displays of numbers and text materials (Ayandele and Adeoye, 2017).

They include electronic calendars, electronic mail directories, schedulers, and task management systems. They provide computer-based support services to managers and other professionals to help them organize their work activities. Office management software computerizes manual methods of planning such as paper calendars, appointment books, directories, file folders, memos, and notes. Microcomputer users can get some of the benefits of office management systems by using desktop accessories and personal information manager packages (Ayandele and Adeoye, 2017).

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In general, modern offices are willing to invest in technology so that employees can connect and collaborate in an efficient and effective manner. It is therefore imperative to investigate the Graduates' E-competencies required for Maximum Productivity in the 21st century office

Purpose of this Study

The main purpose of this study was to determine the graduates' E-competencies required for maximum productivity in the 21st century office. Specifically, the study sought to determine the:

1. Graduates' reprographic E-competencies required for maximum productivity in the 21st century office

Research Question

Based on the purpose of the study, the researchers raised one questions to guide the study

1. What are the graduates reprographic E-competencies required for maximum productivity in the 21st century office?

Hypotheses

The hypothesis was tested at 0.05 level of significance will guide the study:

1. There was no significant difference in the mean ratings of male and female office administrators' response on the graduates reprographic E-competencies required for maximum productivity in the 21st century office.

Methodology

A descriptive research survey design was used for the study. The sample of the study consisted of three hundred and twenty-five (325) office administrators in universities in south-west Nigeria which comprised of Abia State, Anaabra State, Ebonyi State, Enugu State and Imo State respectively. The instrument for data collection was a structured questionnaire titled: Graduates' E-competency required for Maximum Productivity scale (GECRMP). The instrument for the study was validated by three experts, two from the department of business education and one from measurement and evaluation, all from the faculty of vocation and science education at the University of Calabar, Calabar. The reliability of the instrument was ascertained through a pilot study involving office administrators in South-South, Nigeria. The data collected from the respondents in the pilot study was used to compute the reliability of the instrument. The Cronbach alpha SPSS statistical procedure was used to determine the internal consistency of the instrument, which yielded an overall consistency of 0.81. The instrument for the study has two parts. Part one sought information on the demographics of the respondents. Mean and standard deviation were used to answer the questions, and the t-test statistic was used to test the hypothesis. The hypotheses were tested at a significance level of 0.05.

Results of the Finding

Research Question

What are the graduates reprographic E-competency required for maximum productivity in the 21st century office?

Items 1 – 10 in the instrument were used to answer this research question. Summary of results is presented on Table 1

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Table 1: Mean Rating of graduates reprographic E-competency required for maximum productivity in the 21st century office

SN	Reprographic E-competencies	Mean	SD	Remarks
1	Capability to photocopy documents using a copier	2.93	0.99	Required
2	Capability to reduce document size with copiers	2.78	0.92	Required
3	The ability to make multiple master copies	2.78	0.93	Required
4	Document scanning ability	2.83	0.98	Required
5	Capability to photocopy documents using a copier	2.81	0.98	Required
6	Document lamination capability	2.77	1.02	Required
7	Capability to properly catalog files	2.75	0.98	Required
8	Capability to decide which records to keep	2.78	0.93	Required
9	Capability to keep a good storage system	2.64	1.03	Required
10	Capability to ensure adequate record protection	2.53	1.01	Required
	Grand Mean	**2.75**	**1.02**	**Required**

Table 1 revealed that all the items 1–10 had mean scores between 2.43 and 2.93, with a grand mean of 2.75. This indicates that the respondents agreed that graduates' reprographic E-competency is required for maximum productivity in the 21st century office. The standard deviation scores ranged between 0.92 and 1.02. This was an indication that the opinions of the respondents did not deviate far from the central mean.

Results of Test of Hypotheses

There was no significant difference in the mean ratings of male and female office administrators' response on the graduates reprographic E-competency required for maximum productivity in the 21st century office

Table 2: t-test of significance of difference in the mean ratings of male and female office administrators' response on the graduates reprographic E-competencies required for maximum productivity in the 21st century office

SN	Reprographic E-competencies	Category	Mean	SD	t.Cal	t.Crit	Decision
11	Capability to photocopy documents using a copier	Male	3.36	0.82	6.86	1.96	S
		Female	2.53	0.96			
12	Capability to reduce document size with copiers	Male	3.13	0.90	5.97	1.96	S
		Female	2.44	0.80			
13	The ability to make multiple master copies	Male	2.97	0.96	3.05	1.96	S
		Female	2.59	0.87			
14	Document scanning ability	Male	3.10	0.93	4.14	1.96	S
		Female	2.58	0.96			
15	Capability to photocopy documents using a copier	Male	3.11	0.82	4.71	1.96	S
		Female	2.52	1.03			
16	Document lamination capability	Male	3.04	0.96	3.87	1.96	S
		Female	2.52	1.01			

17	Capability to properly catalog files	Male	3.09	0.91	5.15	1.96	S
		Female	2.44	0.94			
18	Capability to decide which records to keep	Male	3.02	1.01	3.65	1.96	S
		Female	2.57	0.80			
19	Capability to keep a good storage system	Male	3.07	0.96	6.37	1.96	S
		Female	2.25	0.93			
20	Capability to ensure adequate record protection	Male	2.93	0.89	8.14	1.96	S
		Female	1.96	0.86			

Results of data analysis on Table 2 reveal that there is a significant difference in the mean ratings of male and female office administrators on the graduates' list of essential E-competencies required for maximum productivity in the 21st century office. For all the items 11–20, the e-competencies required are significantly higher for males because they are more exposed to the use of ICT facilities than their female counterparts in the offices.

Discussion
Graduates reprographic E-competencies required for maximum productivity in the 21st century office.

Findings on Table 2 revealed that reprographic skills were needed by office administrators in south-east Nigeria. Hypothesis confirmed this assertion when it stated that there were significant differences in the mean ratings of male and female office administrators on all the reprographic skills required by graduates and the reprographic e-competencies required for maximum productivity in the 21st century office in South-East Nigeria. Ikelegbe (2016) stated that reprographics can be defined as the ability to reproduce documents of any kind. The author further stated that it is the ability to produce many copies of an original document. The equipment varies in size depending on the volume of multiple copies to be made. Equipment under reprography includes photocopiers, cyclostyling or mimeograph machines, and litho presses. Micrographics is an integral part of reprographics and very important to most modern organizations. However, micrographic technology has provided valuable tools for the improvement of record management. The use of micrographics solves the problems of preservation and distribution, promotes economy in storage, and is easily integrated into systems based on the latest electronic technology. The author stated that creating microfilm copies is a convenient method of producing copies of vital records, as it is a proven technology with established standards that assure media quality and stability.

Conclusion
Based on the study's findings, it was concluded that graduates must have reprographic competencies in order to be productive in a 21st century office in South-East Nigeria.

Recommendations
According to the findings and conclusions reached, it is recommended that:
1. School administration and management programs incorporate the teaching of the reprographic E-competencies required into their curriculum in order to prepare business education graduates for future administration.

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