SUPERVISORS' ASSESSMENT OF MODERN OFFICE TECHNOLOGY COMPETENCIES EXPECTED OF OFFICE TECHNOLOGY AND MANAGEMENT (OTM) GRADUATE WORKERS IN DELTA STATE

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Abstract

This study was carried out to determine the modern office technology competencies expected of office technology and management (OTM) graduate workers by supervisors in Delta State. The study was guided by two research questions and two hypotheses tested at 0.05 level of significance. The respondents consisted of 142 supervisors, made up of 74 heads of department and directors of government establishments, and 68 managers and directors of private establishments in the study area. Survey research design was used to conduct the study. A 28-items questionnaire was used to collect data from respondents, which was used for the research. The instrument was validated by experts and had a total Cronbach Alpha reliability coefficient of 0.77. Mean and standard deviations were used to answer the research questions, while t-test was used to test the null hypotheses. The findings of the study indicated that the supervisors, who are employers as well, very much expect information processing competencies from the OTM graduate workers. The extent of supervisors' expectations of information processing competencies did not differ significantly based on the mean ratings of male and female supervisors of OTM graduates in government and private establishments. The findings also reveal that supervisors expect much communication competencies from the OTM graduate workers. The extent of supervisors' expectations of communication competencies did not differ significantly based on the mean ratings of experienced and inexperienced supervisors of OTM graduate workers in government and private establishments. The findings imply that various modern office technology competencies are much needed in government and private establishments irrespective of experience and gender of the supervisors. Hence, the identified competencies need to be emphasized in curriculum practice, training and development for future office technology and management workers. Based on the findings and the implications, it was recommended among other things that, curriculum planners, business and OTM education lecturers should ensure that the competencies required for modern office technologies are entrenched in the school curriculum and taught in the institutions.

Introduction

The global technological revolution engineered by internet and office automation has influenced the ways, means and scope of the functions of business organizations across the

world. In Nigeria, many government and private sector offices are fast adapting to modern technologies. This trend appears to be one of the most viable ways to survive the industrial and group competitions as well as the evolving global technological culture. Studies by Amoor, (2009); Nwaokwa and Okoli, (2012) and Azih, (2013) on effective business organizations identified the use of modern office technologies as critical for increased productivity and overall success of organizations. Therefore, the evolution of modern office technology in business organizations coupled with new management techniques have completely changed old work habits and triggered off a new business orientation thus making moribund the old methods of office transactions. For instance, the old methods of office transactions comprised mainly of the use of paper files, manual operation of machines and equipment. Presently, many offices are automated. Automation is a collection of method for controlling machinery and production processes by mechanical methods, usually with electronic equipment (Akpomi and Ordu, 2009). With the advent of automation, the duties of office technology and management (OTM) graduate office workers have been revolutionized especially in areas of information processing and communication competencies. Azih, (2013) pointed out that in information processing, stencil duplication has been replaced by computer printouts and Xeroxing systems. Horizontal, suspension and other systems of recording are now replaced by compact disc run and database computers systems in the areas of micrograph and telecommunication. Telephones have gone digital while teleconferencing, internet and networking, e-mail, fax and other telecommunication equipment are now used. There is hardly any modern business organization that operates without the use of modern office technology.

Modern office technology is the application of electronic and electro-mechanical devices for the purposes of increasing productivity for office workers. Cornacchione, (2012) noted that modern office technology include emergent tools and equipment that are capable of providing the required conditions and innovations to improve societal well-being in several dimensions of offices. In essence, the development of a new way of performing a particular task is modern technology if its potential effectiveness, appropriateness and efficiency out-perform existing ones. Modern office technology has greatly affected office operations and is greatly felt in OTM profession in information processing and communication areas. Modern office technology competencies are the knowledge and ability to make maximum use of contemporary equipment, tools and machines available in office for the purpose of increase productivity, efficiency and effective service delivery. This involves the capabilities and abilities required for maximum utilization of innovative office technologies.

Assessment is an appraisal of educational activities, a judgement about something based on an understanding of a situation. Assessment is the process by which the quality of an individual's work or performance is judged and the copy of testing the value of a thing (Anaelo, 2006). Therefore, assessment is expected to lead to increased self-awareness and inspire individuals to learn and grow. It involves making expectations explicit and public;

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setting appropriate criteria and high standards for learning quality; systematically gathering, analyzing and interpreting evidence to determine competencies of OTM graduate workers in Delta State. the information processing and communication competencies of OTM graduate workers can only be assessed or judged by the opinion of their supervisors since they work under them.

A supervisor in office organization is one that is responsible for managing other office staff as well as running the office, including such tasks as creating schedules, hiring and training new employees, and maintaining office supplies and equipment, among others (Millers, 2009). Supervisors in the present study covered directors, managers and heads of department in both private and government organizations.

In the light of pervasiveness of modern technologies in offices, OTM graduate office workers ought to have the competencies to use the technologies to perform effectively in the work place. This is important because OTM graduates are ubiquitous workers needed in every type of government and private office to assist their superiors or employers in carrying out their responsibilities.

Statement of the Problem

The current National Commission for Colleges of Education (NCCE) minimum standard for Vocational and Technical Education (NCCE, 2012) revealed that the training given to OTM students have not undergone any significant amendment to reflect the wave of contemporary technological changes. This has created disparity between what is imparted to the OTM students in terms of abilities and the needs of the employers. Azih (2013) observed that the performances of some OTM graduate workers fall short of acceptable practices in modern office technology. The question which this paper intends to profer solution to is: are the institutions satisfying the employers in terms of the modern office technology competencies expected of OTM graduate workers in the areas of information processing and communications?

Purpose of the Study

The main purpose of this study is to determine the Modern Office Technology competencies expected of office technology and management graduate workers in Delta State. Specifically, the study sets out to:

1. assess the extent supervisors in Delta State expect OTM graduate office workers to have information processing competencies.
2. assess the extent supervisors in Delta State expect OTM graduate office workers to have communication competencies.

Research Questions

The following research questions guided the study:

1. To what extent do supervisors in Delta State expect OTM graduate office workers have information processing competencies?
2. To what extent do supervisors in Delta State expect OTM graduate office workers have communication competencies?

Hypotheses

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

1. Supervisors in government and private organizations in Delta State do not differ significantly on the assessment of information processing competencies expected of OTM graduate office workers.

2. Male and female supervisors in Delta State do not differ significantly on the assessment of communication competencies expected of OTM graduate office workers.

Design of the Study

The study utilized the survey design because it sought the opinions and perceptions of the respondents. According to Eze (2005) and Agu (2009), survey design is used in studies that borders on individual opinions, attitudes and perceptions which are descriptive in nature.

Population of the Study

The population of the study comprised 142 supervisors made up of 74 heads of departments and directors of government establishments and 68 managers and directors of private establishments who work directly with OTM graduate office workers in the area of study.

Research Instrument

A set of questionnaire consisting 28 items were used to collect data from the respondents. The structured questionnaire was developed on the basis of the research questions and hypotheses and divided into Part A and B. Part A sought information on demography, that is, gender as well as types of organizations of the respondents. Information gathered from these formed the basis for testing the formulated hypotheses. Part B contained 24 questionnaire items divided into sections 1 and 2. Each section addressed one research question and hypothesis. The instrument based on 5-point Likert rating scale of “very much expected”, “much expected”, “undecided”, “less expected” and “not expected”, was designed to gather data for the two research questions. The instrument was validated by experts in Faculty of Education, Nnamdi Azikiwe University, Awka. A Cronbach alpha method was used to measure the internal consistency which yielded coefficient values of 0.83 and 0.70 respectively for the two sections and the total reliability instrument was 0.77. These values were considered high enough to regard the instrument as reliable. Out of the total

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number of 142 questionnaires administered, 140 were retrieved, representing 99% returned. The administration and retrieval were through personal contact of the researcher and two assistants.

Data Analysis

The data collected from the respondents were analyzed using mean statistics and standard deviations to answer the research questions and test the two hypotheses at 0.05 level of significance.

Decision Rule

The boundary limits of values below were to facilitate decision:

Rating Scale	Points	Boundary Limits
Very Much Expected	5	4.5 5.00
Much Expected	4	3.5 4.49
Undecided	3	2.5 3.49
Less Expected	2	1.5 2.49
Not Expected	1	1.0 1.49

The decision rule for the null hypothesis was to reject where the t-calculated was greater than or equal to (>=) t-critical value. The hypothesis was retained where the t-calculated was less than (<) t-critical.

Result

Table 1: Mean and Standard Deviation of Information Processing Competencies Expected from OTM graduate Office Workers by Supervisors (N = 140)

SN	Items	X	SD	Decision
1	Ability of creating computer files and folders	3.99	.69	ME
2	Using storage devices (hard disk, flash drive, diskette, CD, etc) for storing and sharing computer files	3.89	.86	ME
3	Ability to create backups of important files	4.03	.78	ME
4	Ability to copy, cut and paste text in a document	4.45	.50	ME
5	Formatting table in a document	4.31	.86	ME
6	Using word art to create and shape text in a document	4.48	.59	ME
7	Reviewing and printing text from word processor	4.64	.60	VME
8	Ability to open spreadsheet application software	3.65	.77	ME
9	Merging and splitting cells in a table	4.86	.40	VME
10	Creating formulae to carryout arithmetic computation in worksheet	4.10	.82	ME
11	Ability to save document in the word processor	4.77	.54	VME
12	Creating and editing graphs using spreadsheet application	4.03	1.08	ME

Data presented in Table 1 shows that employers of OTM graduate workers rated items 7, 9 and 11 above 4.50 indicating that the information processing competencies listed in these three items are very much expected from OTM workers. The 9 remaining items scored above 3.50, thus showing the nine information processing competencies as being much expected from the OTM workers by the government and private sector supervisors.

The standard deviations of these items were within 0.40 and 1.08 which shows homogeneity of the mean ratings. The section mean for the entire items was 4.27 which falls within the range of much expected. Therefore, the supervisors much expect OTM graduate workers to have the stated information processing competencies.

Table 2: Mean and Standard Deviations of Communication Competencies Expected from OTM Graduate Workers by Supervisors (N=140)

SN	Items	X	SD	Decision
13	Choosing the right media for sending information.	4.54	.71	VME
14	Discerning the main idea or key facts from a power point environment.	4.66	.86	VME
15	Presenting ideas by setting up and using power point Presentation.	4.51	.61	VME
16	Editing presentation using template.	4.06	.25	ME
17	Adding suitable sounds to presentation in a power point.	4.20	.84	ME
18	Making presentation using slides and projectors.	4.14	.99	ME
19	Writing constructively and drafting reports.	4.47	.50	ME
20	Setting up teleconferencing environment.	3.33	.72	UD
21	Ability to edit official documents.	3.55	.98	ME
22	Composing messages using correct vocabulary, spelling, grammar, and punctuations in English language.	4.61	.57	VME
23	Listening, inferring and interpreting technology information effectively.	4.76	.46	VME
24	Using teleconferencing to coordinate official meetings.	2.00	.74	LE
	Section Mean	4.07	0.18	ME

The analysis presented in Table 2 shows that means of 4.50 and above were obtained for items 13, 14, 15, 22 and 23. This indicates that the supervisors very much expect the five communication competencies from OTM graduate workers. Items 16, 17, 18, 19 and 21 got means within 3.55 and 4. 47 to show that the supervisors much expect OTM graduate office workers to have the five communication competencies.

Item 20 had a mean of 3.33, which reveals that the supervisors were undecided on the extent to which they expect OTM graduate workers to be able to set up teleconferencing environment. Similarly, item 24 scored a mean of 2.00 thereby indicating that using

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teleconferencing to coordinate official meetings is less expected from the OTM graduate workers. Generally, the section mean for the entire items was 4.07. The standard deviations of the items were within 0.25 and 0.99 which shows closeness of the means. Hence, the supervisors much expect communication competencies from OTM graduate workers.

Hypothesis 1:

The mean level of information processing competencies expected of OTM graduate workers by supervisors in government and private organizations in Delta State is not significantly different.

Table 3: **The t-test of** Difference between Mean Level of Supervisors in Government and Private Organizations in Delta State on Information Processing Competencies Expected of OTM graduate workers

Supervisors	X	Sd	N	Df	t cal	t crit	Decision
Male	4.30	0.18	67				Accepted
				138	1.16	1.96	
Female	4.24	0.35	73				

In table 3, the t-calculated of 1.16 is less than the critical-t of 1.96 at 0.05 level of significance. The null hypothesis is therefore accepted. This suggests that there is no significant difference between the mean level of supervisors in government and private organizations on information processing competencies they expect from OTM graduate workers.

Hypothesis 2:

The mean level of communication competencies expected of OTM graduate workers by male and female supervisors in government and private organizations in Delta State is not significantly different.

Table 4: The **t-test of D**ifference between the Mean Level of Male and Female Supervisors in Government and Private Organizations in Delta State on Communication Competencies Expected of OTM graduate workers.

Supervisors	X	Sd	N	Df	t cal	t crit	Decision
Government	4.05	0.18	80	138			Accepted
					1.32	1.96	
Private	4.09	0.16	60				

As presented in table 4, the t-calculated of 1.32 is less than the critical-t of 1.96 at 0.05 level of significance. The null hypothesis is therefore accepted. Hence, there is no significant

difference between male and female supervisors in government and private organizations in Delta State on the mean ratings of communication competencies expected of OTM graduate workers.

Discussion of Findings

Research Question 1 and Hypothesis 1

Information Processing Competencies Expected of the OTM Graduate Workers by the Supervisors: The results of research question 1 revealed that the employers expect much information processing competencies from the OTM graduate workers. Specifically, supervisors indicated that they very much expect the competencies involved in reviewing and printing text from word processor, merging and splitting cells in a table, and saving document in the word processor from the OTM graduate workers. Other much expected information processing competencies are ability of creating computer files and folders, using storage devices (hard disk, flash drive diskette, CD, etc) for storing and sharing computer files, ability to create backups of important files as well as ability to copy cut and paste text in a document. Also, the ability to format table in a document, use word art to create and shape text in a document, open spreadsheet application software, create formulae to carry out arithmetic computation in a worksheet as well as edit graphs using spreadsheet application are much expected from the OTM graduate office workers.

The above results supports the findings of the study carried out by Ohakwe (2000), which showed that skills in managing information and operating modern office machines are crucial competencies required by OTM workers. The finding is also in line with Atueyi (2010) who found that information processing skills are required in the electronic office. Furthermore, the above results of this study agrees with the findings of Obiora and Obi (2001), which revealed that business office workers require technical competencies in information processing. Such information processing competencies would enable the OTM graduate workers to maximize the potentials of ICTs in transforming their offices.

Hypothesis 1 indicated that t-calculated of 1.16 is less than the critical-t of 1.96 at 0.05 level of significance. The null hypothesis is therefore accepted. This suggests that there is no significant difference between the mean level of supervisors in government private organizations in Delta State on the rating of information processing competencies they expect from OTM graduate office workers.

Communication Competencies Expected of the OTM Graduate Workers by the Supervisors: The finding revealed that the supervisors expect much communication competencies from the OTM graduate workers. Specifically, the abilities of choosing the right media for sending information, opening a power point work environment, setting up power point presentation, composing and commanding good English language as well as listening and interpreting effectively are very much expected the OTM graduate workers. Closely following are the abilities of editing presentation using template, adding suitable

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sounds to presentation in a power point, making presentation using slides and projectors, writing constructively and drafting reports, ability to edit official documents, which the supervisors indicated that they very much expect from the OTM graduate worker.

The findings are in line with the communication competencies which Onamade and Temitayo (2012) found that employees in modern organizations need to be able to maintain an overview of the entire operations of their offices. A study by the United Nations (Annan, 2012) reveals that in most countries of the world, business managers agreed that university business management students need to possess several communication competencies, to enable them develop potentials to promote very advanced and challenging ideas in their workplaces.

Hypothesis 2 also indicated that the t-calculated of 1.32 is less than the critical-t of 1.96 at 0.05 level of significance. The null hypothesis is therefore accepted. Hence, there is no significant difference between male and female supervisors in government and private organizations in Delta State on the mean ratings of communication competencies expected of OTM graduate office workers.

Conclusion

Based on the finding of the study, the conclusions are that supervisors expect OTM graduate workers to have much information processing and communication competencies. The extent to which the information and communication competencies are expected from OTM graduate workers did not depend on the gender and sector where the supervisors work. In essence, today's OTM graduate worker is expected to be highly versatile in the competent use of latest modern office technologies. Therefore, to maintain professionally relevant and competitive activities in the face of the technological innovation era, graduate OTM workers need to be exposed to the identified competencies to acquaint themselves with the trend of modern office technology.

Recommendations

In the light of the findings and their implications, the following recommendations are made:

1. Curriculum planners should ensure that information processing and communication competencies are emphasized at different levels of training both pre-service and in-service training of OTM graduate office workers in order to endow them with relevant competencies they are expected to have in their workplaces.
2. The tertiary institutions should endeavour to adopt the use of modern office technologies in the teaching and learning processes organized for OTM undergraduates so as to enable them acquire these competencies required for modern office technology usage.
3. The government and private sectors supervisors of OTM graduate workers should mount seminars and workshops to train and retrain the OTM graduate workers to enable them have these competencies required in the modern offices.

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