



INFLUENCE OF INFORMATION AND COMMUNICATION TECHNOLOGY SKILLS ON SECRETARIES' JOB RETENTION IN TERTIARY INSTITUTIONS IN DELTA STATE

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Abstract

The study assessed the influence of information and communication technology skills on secretaries' job retention in tertiary institutions in Delta State. Two research questions were raised and a null hypothesis was tested at 0.05 level of significance for the study. The study utilized descriptive survey research design. The population of the study was 186 secretaries from six tertiary institutions in Delta State. There was no sampling. A questionnaire was used to collect data. Mean was used to answer the research questions and t-test was used to test the hypothesis. The results of the analysis showed that desktop publishing influenced job retention to a high extent; it also revealed that spreadsheet influenced job retention to a high extent. Male and female secretaries did not differ significantly in their rating on the influence of ICT skills on secretaries' job retention in Delta State; hence the null hypothesis was accepted. It was therefore concluded that ICT skills that mostly influence the job retention of secretaries in tertiary institutions in Delta State are desktop publishing skills and spreadsheet. Consequently, it was recommended that Tertiary Education Trust Fund in combination with school management should prioritize the training and re-training of secretaries on ICT skills.

Keywords: *Job Retention, Desktop Publishing, Spreadsheet, ICT, Tertiary Institutions*

Introduction

In most countries of the world, the information revolution has altered many aspects of life significantly in areas such as: education, commerce, employment, medicine, security, transportation, and entertainment. Consequently, information and communication technology (ICT) has affected in both good and bad ways, for example in community life, family life, human relationships, education, careers, freedom and democracy (Stanford, 2015). The future looks bright for office and effective secretarial work in the 21st century, as a result of major changes in the way the world operates.

Information communication technology is a tool that comprises electronic devices which are utilized for the information and communication needs of institutions, organizations, students and individuals (Nwakundo, Oguejiofor & Nwankwo, 2006). Such electronic devices include computers (software and hardware), networking, telephone,



video, multimedia and internet. Application and utilization of these devices convert information, text messages, sounds and motion to common digital forms. Therefore, information and communication technology is the use of computer and telecommunication facilities to store, process and retrieve information from various sources, generate and transfer ideas, and also impart knowledge to recipients.

New business procedures and global markets trends have contributed to the new demands in today's world of work. These changes that have affected secretaries in the work place also affect curriculum changes in programs training individuals for the secretarial profession. The course seems to have changed in nomenclature content and scope. Igbiniedion (2011) stated that secretarial education which gave birth to office technology and management started in the United States of America in the 17th and 18th centuries, by the 19th and 20th centuries and the course had expanded rapidly to some developed and developing countries. The author further explained that Office Technology and Management education is a specialized phase of vocational education that prepares students to enter teaching and office occupations as capable and intelligent members of the work force. Knowledge in ICT becomes imperative for the learners of office technology and management programme. Technology appears to be the driving force behind much of the change in the way of doing office work. The jobs of today's secretaries are threatened by the flux of technologies as the role of the secretaries is being challenged. There is therefore a need for secretaries to acquire new skills that will enable them cope with this development. The indispensable role of information communication technology forms the bedrock and overall development of any nation (UNESCO, 2004).

Desktop publishing is the ability to arrange text and graphics in such a way as to effectively communicate ideas and create documents (Jeroen & Weckert, 2008). Desktop publishing (DTP) is the creation of documents using page layout software on a personal ("desktop") computer. It was first used almost exclusively for print publications, but now it also assists in the creation of various forms of online content (Bear, 2019). Desktop publishing software can generate layouts and produce typographic-quality text and images comparable to traditional typography and printing. Desktop publishing is also the main reference for digital typography. This technology allows individuals, businesses, and other organizations to self-publish a wide variety of content, from menus to magazines to books, without the expense of commercial printing (Ruiter, 1988).

Desktop publishing often requires the use of a personal computer and What You See is What You Get (WYSIWYG) page layout software to create documents for either large-scale publishing or small-scale local multifunction peripheral output and distribution – although a non-WYSIWYG system such as LaTeX could also be used for the creation of highly structured and technically demanding documents as well (Presley, 2010). Desktop publishing methods provide more control over design, layout, and typography than word processing. However, word processing software has evolved to include most, if not all, capabilities previously available only with professional printing or desktop publishing (Math Vault, 2015).



A spreadsheet is a computer application for organization, analysis and storage of data in tabular form (American Heritage Dictionary, 2011). Spreadsheets were developed as computerized analogs of paper accounting worksheets (TechTarget, 2016). The program operates on data entered in cells of a table. Each cell may contain either numeric or text data, or the results of formulas that automatically calculate and display a value based on the contents of other cells. A spreadsheet may also refer to one such electronic document (Beal, 2016).

Spreadsheet users can adjust any stored value and observe the effects on calculated values. This makes the spreadsheet useful for "what-if" analysis since many cases can be rapidly investigated without manual recalculation. Modern spreadsheet software can have multiple interacting sheets and can display data either as text and numerals or in graphical form.

Spreadsheets are application software used to solve business problem that require comparison, projection, or evaluation of different proposal. With spreadsheet application, such as MS Excel, information is easily displayed and people can insert formulas to work with data. Information can also be sorted and filtered and it is usually useful for decision making (Jorn & Duin, 1992).

The secretarial roles and functions have been changing in the past few years, and are likely to change further in the near future. The key factors driving these changes according to Nonye (2013) include; advances in information technology and increased computerization; changes in organizational structures and changes in organizational cultures and working practices. In some organizations secretaries are increasingly regarded as Information Technology (IT) experts' and are expected to provide formal and informal training to other staff and to contribute to the organization's IT policy.

Employers do not seem to follow hard and fast rules regarding the indicators used to identify the right type and combination of secretarial skills. While employers are increasingly looking for a wider range and higher level of skills on the whole they do not seem to have changed the indicators (educational qualifications) nor their recruitment methods, in line with their new skill needs and requirements. There is also need for retention of these secretaries especially in tertiary institutions.

Employee retention refers to the ability of an organization to retain its employees. It can also be considered as the efforts by which employers attempt to retain the employees in their workforce (Allen, 2008). Secretaries' retention in tertiary institutions is important so as to prevent high rate of turnover which is a function of low morale, absence of clear career path, lack of recognition, lack of job satisfaction and commitment, amongst others.

Tertiary institutions in Delta State occupy a center stage in the social-economic development of the State in addition to the educational goals of these institutions. These institutions have secretaries at various levels saddled with different responsibilities for the optimal performance of the schools. It appears however that the secretarial profession in tertiary institutions in Delta State is lagging behind as it has been observed that many secretaries transfer to academics due to skill gap with the advent of modern technology. Could it be that the secretaries are unable to cope with advances in information and communication technology, rendering them mundane? Some of the secretaries seem not



to be abreast with ICT knowledge as management tends to neglect them in staff trainings, workshops and conferences. If this trend is not curbed, there might be high employee turnover leading to organizational deficiency for the institutions such as untimely preparation of students' results for graduation. Likely collapse in the chain of command resulting in deficiency towards information production, dissemination and circulation in the institutions. Can skills in desktop publishing and spreadsheet come to the rescue? The researcher therefore ascertained the influence of ICT skills on secretaries' job retention in tertiary institutions in Delta State.

Research Questions

The following research questions guided the study.

1. To what extent do desktop publishing skills influence secretaries' job retention?
2. To what extent do spreadsheet skills influence secretaries' job retention?

Hypothesis

The following null hypothesis was formulated and tested at 0.05 level of significance.

H₀₁ There is no significant difference in the mean ratings of influence of ICT skills on job retention between male and female secretaries in tertiary institutions in Delta State.

Scope of the Study

The study covered the influence of ICT skills on secretaries' job retention in tertiary institutions in Delta State. It covered desktop publishing and spreadsheet skills and was restricted to Delta State Polytechnics; Otefe, Ozoro and Ogwach-uku., Federal College of Education, Technical (Asaba) and Colleges of Education; Agbor and Warri.

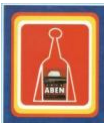
Methodology

The study adopted a descriptive survey design. Descriptive survey research is devoted to the gathering of information about prevailing conditions or situation for the purpose of description and interpretation (Omorogiwa, 2006). The population of the study is shown below:

Table 1: Population of Secretaries in Tertiary Institutions in Delta State

S/N	Name of Institution	Population
1.	Delta State Polytechnic, Ozoro	33
2.	Delta State Polytechnic, Otefe	28
3.	Delta State Polytechnic, Ogwashi-Ukwu	36
4.	Federal College of Education, (Technical), Asaba	37
5.	College of Education, Warri	25
6.	College of Education, Agbor	27
	Total	186

Source: *Various Institutions Records, 2019.*



There was no sampling as the entire population was used for the study. The instrument used for this study was a structured questionnaire. The instrument was self-developed by the researcher. The instrument was made up of two sections; A and B. Section A contained the respondents socio- demographic data while section B contained fifteen (15) item statements. Research question one had items 1-8 and research question two had items 9-15. The responses were rated on a four (4) point rating scale ranging from Very High Extent (VHE) =4, High Extent (HE) = 3, Low Extent (LE) = 2 and Very Low Extent (VLE) = 1.

The instrument for data collection was subjected to face validity by three experts for validation. To ascertain the reliability of the study, Cronbach alpha statistics was used. The instrument was administered to twenty (20) respondents from College of Education, Igueben, Edo State for reliability purpose. An alpha value of 0.97 was obtained, which showed that the instrument was reliable.

Copies of the questionnaire were administered to respondents by the researcher with the help of three research assistants who were briefed on the mode of the study. The questionnaires were administered and retrieved immediately in order to control loss of questionnaire. The exercise lasted for three weeks. The data generated from the administration of the research questionnaire was analyzed using mean(x) to answer the research questions while t-test was used to test the hypothesis at 0.05 level of significance.

In taking decision, if the calculated mean is greater or equal to 2.50 it is regarded as high extent, while calculated mean of less than 2.50 is regarded as low extent and on the basis of hypothesis, where the calculated t-test exceeds the table or critical value, the null hypothesis is rejected otherwise accepted.

Results

Research Question One

To what extent do desktop publishing skills influence secretaries' job retention?

The data collected in respect of research question one are presented in table 2



Table 2: Extent of desktop publishing skills on secretaries' job retention

S/N	Item Statement	Mean(x)	SD	Remarks
1	Skills in deleting, editing, importing and saving in e-mail account influence retention	2.94	0.99	High Extent
2	Skills in creating a new database	2.82	0.97	High Extent
3	Skills in organizing information in rows and columns	3.12	0.96	High Extent
4	Skills in creating and organizing computer files and folders	2.90	1.07	High Extent
5	Using storage devices (hard disk, CD, flash etc) for storing and sharing files encourage job retention	2.59	1.84	High Extent
6	Skills in creating and formatting a table in a document	2.86	1.18	High Extent
7	Skills in previewing, printing and saving text in a word processor	3.17	0.89	High Extent
8	Training in desktop publishing course module engenders retention	3.23	1.00	High Extent
Total		2.95	1.11	High Extent

Source: Field Study, 2020

Key: S/N-Serial Number, SD-Standard Deviation

The mean ratings of the respondents ranged from 2.59 to 3.23 as shown on table 2. The table shows that all the variables were rated high extent.

The result showed that desktop publishing skills have high extent influence on secretaries' job retention in tertiary institutions in Delta State.

Research Question Two

To what extent do spreadsheet skills influence secretaries' job retention? The data collected in respect of research question two are presented in table 3.

Table 3: Extent of spreadsheet skills on secretaries' job retention

S/N	Item Statement	Mean(x)	SD	Remarks
9	Training in spreadsheet encourages secretaries job retention	2.94	0.99	High Extent
10	Skills in opening of spreadsheet application software	2.59	1.84	High Extent
11	Skills in merging and centering data in worksheet	2.86	1.18	High Extent
12	Skills in creating, editing and formatting charts and graph using spreadsheet application	3.03	1.13	High Extent
13	Skills in creating a new database for schools records	2.90	1.14	High Extent
14	Skills in organizing information in rows and columns	2.69	1.18	High Extent
15	Skills in compiling telephone directory of various departments and offices	2.98	1.01	High Extent
Total		2.86	1.21	High Extent

Source: Field Study, 2020

Key: S/N-Serial Number, SD-Standard Deviation



The mean ratings of the respondents ranged from 2.59 to 3.03 as shown on table 3. The table showed that all the variables were rated as high extent.

The result revealed that spreadsheet skills have high extent influence on secretaries' job retention in tertiary institutions in Delta State.

Hypothesis Testing

One hypothesis was formulated and tested at a significance level of 0.05.

Hypothesis One

There is no significant difference in the mean ratings of influence of ICT skills on job retention between male and female secretaries in tertiary institutions in Delta State.

The data meant to test the hypothesis 1 were calculated and the results are summarized in table 4.

Table 4: t-test Difference of Mean Response Between Male and Female Secretaries on ICT Skills Influence on Job Retention.

Respondents	N	X	S.D	Df	t-Calculated	t-Critical	Decision
Male	82	2.26	0.87	184	0.887	1.450	Accept Ho
Female	104	2.45	0.92				

Source: *Field Study 2020.*

Key: *N-Number of respondents, X- Mean, S.D- Standard Deviation, Df-Degree of freedom.*

The information shown in table 4 revealed that the t-critical value indicated 1.450. The t-calculated value showed 0.887. The mean ratings for male secretaries and female secretaries indicated 2.26 and 2.45 respectively. The standard deviation for male respondents showed 0.87 while that of female respondents indicated 0.92. The degree of freedom showed 184. The number of male respondents was 82 while the female respondents were 104. On this note, the null hypothesis that there is no significant difference in the mean ratings between male and female secretaries on ICT skills influence on job retention in tertiary institutions in Delta State was accepted based on fact that the t-critical value of 1.450 was greater than t-calculated value of 0.887.



Discussion of Major Findings

The findings of the study are discussed as follows:

The analysis of research question 1 as shown in table two revealed that the respondents rated desktop publishing skills as having high extent influence on secretaries' job retention in tertiary institutions in Delta State. The finding of Aliata and Hawa (2014) that modern technology improves the performance and retention of office managers is in consonance with the findings of this study. Skills in modern technology such as desktop publishing skill reduce the work load of secretaries and as such bring about job satisfaction and thereafter retention. A secretary who is equipped on the necessary information and communication technology skills for his/her job performance is unlikely to leave the system.

The analysis of research question 2 as shown in table three revealed that the respondents rated spreadsheet skills as having high extent influence on secretaries' job retention in tertiary institutions in Delta State. Spreadsheet skill is an essential skill for the modern secretary as it allows the user to create, store and retrieve document in seamless manner. Thus secretaries in tertiary institutions who are saddled with results tabulation can find the job burdensome if they have little or no spreadsheet knowledge. However, knowledge of this skill gives job satisfaction, commitment and consequently retention to the secretary. The finding of Abosede and Akintola (2015) that information and communication technology facilities utilization gives optimum performance to secretaries' job functions and thereafter retention is in consonance with the findings of this study.

The test of hypothesis 1 as shown in table four also indicated that there is no significant difference in the mean ratings between male and female secretaries on ICT skills influence on job retention in tertiary institutions in Delta State. This implies that the secretaries in Delta State did not differ significantly in their ratings based on gender as regards ICT skills and ability to influence secretaries' job retention.

Gender is sometimes perceived to be a limiting factor in skills acquisition and utilization for secretaries especially as it perceived to be feminine. However, the presence of information and communication skills has provided the needed boost to all and sundry to embrace the profession while performing at their optimal potential.

Conclusion

Based on the findings of the study, the researcher concluded that information and communication technology skills that influence the job retention of secretaries in tertiary institutions in Delta State are desktop publishing skills and spreadsheet. This implies that ICT skills have the potential of reducing the attrition rate of secretaries in tertiary institutions in Delta State.



Based on the conclusion the following recommendations are made from this study.

1. Tertiary Education Trust Fund in combination with school management should regularly allow and approve training and re-training of secretaries on the needed ICT skills through seminars, workshops, conferences, short courses amongst others.
2. Secretaries should be enthusiastic to acquire appropriate skill in desktop publishing and spreadsheet among other ICT skills that can improve their job performance and retention.

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