Spread sheet application skills need of Library and Information Science students for job performance in Abia State, Nigeria

Dr. Okpokwasili Nonyelum P.
Department of Library and Information Science,
Faculty of Education, Rivers State University, PMB 5080, Nkpolu-Oroworukwo, Port Harcourt, Nigeria

Article details:
Received: 12th Oct, 2018
Revision: 25th Oct, 2018
Accepted: 15th Nov, 2018
Published: 27th Nov, 2018

ABSTRACT

*This study sought to determine the Spread sheet application skills need of Library and Information Science (LIS) students for Job Performance in Abia State, Nigeria. A research question and a null hypothesis were formulated to guide the study. A descriptive survey research design was adopted for the study. The population comprised 370 LIS students and Lecturers and due to the manageable size of the population, the entire population was sampled and used for the study, using 370 respondents selected from higher institutions of learning in Abia State, Nigeria. A structured and validated instrument titled A structured 4 points scaled questionnaire titled "**Spread sheet Application Skills Need Questionnaire (SASNEQ)**" was used to elicit data for the study. Cronbach Alpha procedure was used to establish the reliability of the instrument with a coefficient of 0.78 which showed that the instrument was reliable. Mean and Improvement Need Index (INI) were used to analyze the responses from the research question, while the null hypothesis was tested using the independent t-test at 0.05 level of significance. The result showed that spread sheet application skills of LIS Lecturers are highly needed with positive improvement index. The following recommendations were given among others: Library and Information science Lecturers should be given awareness by their employers on the need to acquire Spreadsheet application skills.*

Keywords: *Spread Sheet, Application, Skill, Library and Information Science students, Job Performance, Abia State, Nigeria.*

1. INTRODUCTION

Spread sheet software application is computer software that formats data in columns and rows in order to allow for easy calculation. Steven, Les, James and Robert (2003) noted that spread sheet is used for preparing payroll records, financial statements or estimates, budgets and other financial or numerical related documents. They further explained that it can be used to analyse data meant for decision making purposes because it has the capacity to generate accurate results based on the accuracy of the formulas created. Ubani (2008) opined that spread sheet application skills needed by users include but not limited to: ability to enter data, construct formulas, sort or filter data, use monetary signs, format cells, cut, copy and paste cells, move worksheets and name them. Quible (2011) viewed spread sheets as software application which was created using a software programme designed to process or manipulate information found within tables comprising of columns both vertical and rows horizontal. These software application skills would help a secretary to compute financial estimates for the office and keep petty cash records.

Igiri and Ubani (2014) opined that a spread sheet package is a rectangular table of information, often financial information. They also stressed that Spread sheet means a format used to present bookkeeping and ledger with columns that show the process of expenditures across the top. Obasi (2006) stated that spread sheet software package is a-semi-accounting software that is readily available for the purpose of analysing and computing some

simple accounting/bookkeeping activities. Neenwi and Taylor (2006) also observed that Microsoft excel allows one to create professional spread sheets and charts, which provides numerous functions and formulas to assist one in projects and business accounts. They also stressed that excel allows one to create spread sheets much like paper ledgers that can perform automatic calculations.

Abdulkarim (2016) described competencies as specific knowledge, skills and attitude needed for productivity. Therefore, since competencies include knowledge, skills and experiences related to job, in this study library and information science students' competencies in relation to information systems can be defined as the knowledge, skills and attitude developed for their information systems proper utilization. However, the interest of the present study is on the skills needed for the utilization of the various applications that can facilitate information gathering and processing, especially, the offerings of Microsoft application software, spread sheet used for office information processing and presentation.

2. LITERATURE SURVEY

Spread sheet software application is computer software that formats data in columns and rows in order to allow for easy calculation. Steven, Les, James and Robert (2003) noted that spread sheet is used for preparing payroll records, financial statements or estimates, budgets and other financial or numeric related documents. They further explained that it can be used to analyze data meant for decision making purpose because it has the capacity to generate accurate results based on the accuracy of the formulas created. West (2016) maintained that Microsoft spread sheet is a software package that allows the user to create tables and financial schedules by entering data into rows and columns arranged as a grid on a display screen. Quible (2011) views spread sheets as an software application which was created using a software programme design to process or manipulate information found within tables comprising of columns (vertical and rows horizontal). These software application skills would help a secretary to compute financial estimates for the office and keep petty cash records.

Spread sheet application package is in most cases used by secretaries to arrange words and numbers in columns and rows. It can be used by the secretaries to estimate the income and expenditure records of the office. Spread sheet software enables one to arrange and organize data in rows and columns which is also known as worksheet. Ubani (2008) viewed spread sheet as a means of spreading figures over a sheet of paper and carrying out calculations on them. Spread sheet is sometimes called ledger. Spread sheet is the computerized equivalent of an accounting ledger. The spread sheet packages are as follows: Super-scale, Lotus 1, 2, 3, VisiCalc, Pipedream as well as Microsoft excel. Microsoft excel is the most commonly used among spread sheet packages. Spread sheet packages are referred to as electronic spread sheet. Neenwi and Taylor (2006) stated that each excel file is a workbook that can hold many worksheets which has columns and rows.

Osuagwu, Onuodu and Eleonu (2008) defined excel as an electronic worksheet and application that uses mathematical formulas to perform calculations on data, much like ledger sheet. Excel is known for its rows and columns. The use of excel will enable secretaries to perform their calculations easily and effectively without using paper and it enhances secretaries' job functions. Excel can be used in performing secretarial duties such as preparation of salary payroll, computation of workers' data, budgeting and planning, calculation of the population of the staff, taking inventory of the organizations properties. Quible (2011) stated that the following are the spread sheet application skills that users need to develop:

1. The ability to identify columns' reference numbers.
2. The ability to identify rows' reference numbers
3. The ability to understand the intersection of the row and columns and identify the cells reference number or address.
4. The ability to enter data into the cells.
5. The ability to construct formulas for carrying out calculation within cells.
6. The ability to present results in other graphic forms such as: bar-chart, pie-chart, histogram, and so on.
7. The ability to save, move and edit worksheet.

Microsoft excel can be described as a powerful application intended to manage financial information, execute mathematical calculations, trail data base information. Microsoft excel has been discovered to be the most appreciated electronic spread sheet program used in most organizations, including the public services. The reason for utilization of excel in public services, is to create spread sheets, list, tables as well as charts. The basic of a

spread sheet package is an electronic worksheet whereby data can be stored and manipulated when the need arises. Spread sheet is a matrix of locations which can contain values, formulae and relationships. The key feature is that all elements in the matrix are changed spontaneously when one or more of the keys assumptions are altered.

Issa, Ayodele, Abubakar and Aliyu (2011) carried out a study on application of information technology to library services at the Federal University of Technology, Akure library, Ondo State. The purpose of the study was to: identify the information technology devices available at the Federal University of Technology, Akure library; to know the effects of the application on library staff's job performance; to know the number of trained staff available and competent to handle these devices; to ascertain funds availability to the library for proper handling and maintenance of the devices and to know the constraints encountered in the application of the devices in the library. In this research study, survey research design was employed. The population comprised all the active users of the Federal University of Technology, Akure (FUTA) library.

The population of the study comprised of nine hundred and twenty-nine (929) respondents and the sample size comprised two hundred and two (202) respondents representing 21.74%. The random sample technique was adopted. A structured instrument in form of questionnaire titled "The information technology application of library services and use questionnaire (ITALSCO) was used as an instrument for collection of data. Copies of questionnaire were administered to the 202 respondents, therefore representing 21.74%. The study sample of (202) from the population (929) was considered justifiable. It was recommended that: provision of funds should be on a regular basis. The mandatory 10% of the budgetary allocation of the university set aside for the university library should be so disbursed and monitored for judicious utilization. If this is realized, the library management should make automation top on its priority list and be pursed conscientiously and to a logical and beneficial end. That there should be provision for alternative power supply by having a dedicated generating plant for the library use to offset the adverse effects of constant power outage that has come to stay in Nigeria. This is especially important because of the total dependence of the IT use on electronic power supply. Those students should be trained on how to use information system facilities toward achieving academic excellence. This may be through continuous orientation and the inclusion of such courses like; use of computer for information retrieval, use of Internet/worldwide web and IT applications.

This study is related to the present study in that the two studies adopted survey research design and questionnaire as instrument for data collection. The findings of the study also guided the researcher to identify, adopt as well as use the afore-stated information systems skills to carry out the present study. Library and information science as a discipline is designed to produce information professionals that will competently serve different stakeholders for development. The LIS students are expected to be empowered through practical, technical and information systems skills. They are also expected to draw from the various technical well of knowledge and be equipped for job creation. Library and information science students need to be given core technical and information systems application training skills in relation to library and information services so that, on graduation, they would able to effectively carried out their duties using spread sheet application skills.

3. PROBLEM STATEMENT

Most Library and Information Science Lecturers seem not to be trained because; most of them lack the basic skills for utilizing the spread sheet application skills for effective job performance. In same vein, most of the LIS Lecturers find it difficult to utilize and apply the skills in their various offices. This is because most of them lack the needed and required spread sheet application skills that will enable them store information. Why will a LIS Lecturer find it difficult to utilize spread sheet application skills? Were they not taught and trained for it? If these problems are to be solved, there is need to ascertain the training and facilities used in training LIS Lecturers as to help in determining why they find it difficult to utilize spread sheet application skills to enhance productivity in the e-world work environment.

Research Question 1

This research question guided the study;

1. What is the Spread sheet application skills need of Library and Information Science Students for job performance in the Abia State?

Null Hypothesis

1. The following null hypotheses was tested at $p < 0.05$ level of significance.

There is no significant difference in the Mean responses of Library and Information Science students on the Spread sheet application skills need for job performance in Abia State.

4. METHODOLOGY

The study employed descriptive survey research design. A survey research design involves gathering information from the sample size through the population that is familiar with the ideas and issues relating to the objectives of the study. It is the act of eliciting questions from the respondents. The study was carried out in higher institutions in Abia State, Nigeria, Specifically Abia State University, Uturu and Michael Okpara University, Umuahia. The population for the study comprised 370 Library and Information science Lecturers and students from the higher institutions in Abia State mentioned above, while the same population was used as the sample due to the manageable size of the population. A structured 4 points scaled questionnaire titled "Spreadsheet Application Skills Need Questionnaire (SASNEQ)'' was developed and used for the study. The instruments were face validated by two experts in measurement and evaluation, their comments about the instrument indicated that the instrument was suitable for use for the study. A coefficient of 0.78 was Obtained using Cronbach Alpha method. 370 copies of questionnaire which were distributed to the respondents were completely filled and retrieved. Mean and Improvement Need Index (INI) were used to answer the research questions, while t-test statistical tool was utilized to test the hypotheses.

Research Question 1

What is the spread sheet application skills need of Library and Information Science students for job performance?

Table 1: Mean and INI on Spread Sheet Application Skills Need of LIS students for Job Performance (N = 370)

S/N	Items	$\overline{X}_1$	$\overline{X}_2$	$\overline{X}_1 - \overline{X}_2$ (INI)	Remark
1	Skills in manipulating figures	2.64	2.46	.18	Needed
2	Ability to create columns	1.26	1.38	.12	Needed
3	Ability to manipulate rows	1.78	1.68	.11	Needed
4	Skills in manipulating account statements	1.86	1.74	.12	Needed
5	Skills in manipulating staff payroll	2.68	2.55	.13	Needed
6	Ability to create charts	2.72	2.76	-.04	Needed
7	Ability to create tables	1.68	1.66	.02	Needed
	Cluster Mean	**2.09**	**2.03**	**.09**	**Needed**

Researcher's Field Survey, 2019

Data in Table 1 showed the mean ratings of LIS students' performance on spread sheets applications skills with improvement need index (INI). It is indicated that except on ability to create charts which has a negative INI (-.04), other skills yielded positive INI. Since the cluster mean is positive .09, there is the need for improvement in these skills because the level of performance by the LIS students is not up to the level of the required skills.

Null hypothesis

There is no significant difference in the mean responses of LIS students and Lecturers on the Spread sheet application skills need for job performance in Abita State at $p < 0.05$ level of significance.

Table 2: The t-statistics testing the difference between the Mean responses on spreadsheet application skills Need.

S/N	Items	$\overline{X}_1$	$\overline{X}_2$	SD_1	SD_2	t-cal	t-crit	Decision
1	Skills in numbering figures	2.64	2.46	1.16	.98	1.20	1.96	NS
2	Ability to create columns	1.26	1.38	1.62	2.84	.63	1.96	NS
3	Ability to manipulate rows	1.78	1.67	1.12	1.56	.69	1.96	NS
4	Skills in manipulating account statements	1.86	1.74	.98	.68	.92	1.96	NS
5	Skills in manipulating staff payrolls	2.68	2.55	.98	.76	1.30	1.96	NS
6	Ability to create charts	2.72	2.76	1.11	2.16	-1.74	1.96	NS
7	Ability to create tables	1.68	1.66	.46	.86	1.33	1.96	NS
	Cluster t					**0.62**	**1.96**	**NS**

NS= Not Significant at .05 alpha level of significant and df= 364

Data in Table 2 showed the t-statistic testing the difference between the mean responses of LIS students and lecturers on spread sheet application skills need of library and information science students for job performance. The

analysis revealed that for all the items measured the t-values are not significant because all the t-value are less than the critical t-value (1.96) at .05 level of significance at df = 364. Hence, the null hypothesis that there is no significant difference between the mean responses of LIS students and lecturers on spread sheet application skills of secretaries for job performance is retained for all the items.

5. DISCUSSION FINDINGS

The study revealed that spread sheet application skills are highly needed for job performance. The skills need has a positive INI and it is statistically significant at .05 alpha levels. This result is perhaps influenced by the relevance of spread sheet application in the office information management system such as preparation of payroll records, financial statements or estimates, budget and other financial or numeric related documents. The findings of spread sheet application skills need of LIS students is in consonance with the views of Steven, Les, James and Robert (2003) which emphasized that LIS students' need for spread sheet application skills for job performance is important because the skills are required for data analysis meant for decision making, computing financial estimates for the office and keeping petty cash records. In addition, spread sheet software will enable Library and Information Science students to arrange and organized data in rows and columns which is also known as worksheet.

The findings also agrees with opinion of Obasi (2006) that spread sheet application skills are needed by LIS students because spread sheet software package is a semi-accounting software that is readily available for the purpose of analyzing and computing some simple accounting/bookkeeping activities. The findings of spread sheet software application skills is in accordance with the assertions of Ubani (2008) that spread sheet can help LIS graduates to carry out their office functions especially those related to financial information. In the same vein, the findings of the study are in consonance with the view of. Therefore LIS students require constant upgrading of their skills in spread sheet application for better job performance in the future.

6. CONCLUSION

Spread sheet application skills include but not limited to: ability to enter data, construct formulas, sort or filter data, use monetary signs, format cells, cut, copy and paste cells, move worksheets and name them. Spread sheet software application skills can help LIS (Graduate) to carry out their office functions, especially those related to financial information. Therefore Library and Information Science students need to be proficient in use of Microsoft Excel in order to keep their petty cash account.

REFERENCES

[1]. Abdulkarim, M. Information system and information system resources: A seminar paper presented as part of requirement for Ph.D. course work in the Department of Vocational Education. University of Uyo, Akwa-Ibom State, 2016.

[2]. Igiri, P. C. and Ubani, C. Head-heart-hand on Information and Communication Technology: H3 ICT. Port Harcourt: Alivic publications Limited, 2014.

[3]. Neenwi, S., and Taylor, O. E. Information Age Computing: A Beginner's Guide. Port Harcourt: Faith Wise Concepts, 2006

[4]. Issa, A. O. Ayodele, A. E., Abubakar, U. and Aliyu, M. B. Library Philosophy and Practice: e-Journal: 576. 2011.

[5]. Obasi, N. M. Information and communication technology for schools and colleges. Port Harcourt: Speng Education Publications, 2006.

[6]. Osuagwu, O. E, Onuodu, F. E. and Ugwu, C. Introduction to computer applications. Owerri: Joyfler Press and Allians Company, 2008.

[7]. Quible, Z. K. (2011). Administrative office management: An introduction, 8th Ed. Oklahoma: PHI Learning Private Limited, 2011.

[8]. Steven, A, E., Les, R. D., James, I. B. and Robert, A. R. Introduction to business. United State of America: Thompson Learning, 2003.

[9]. Ubani, A. O. Teach yourself computer: A practical approach to MS-Dos, MS-windows and MS word. Port Harcourt: Upturn Printers and Publishers, 2008.

[10]. West, T. G. Modern Computing Techniques: New perspective on ICT compliance. Port Harcourt: Agipea Global Services, 2016

AUTHOR'S BIBLIOGRAPHY

Dr. (Mrs) Nonyelum P. Okpokwasili a Chartered Librarian of Nigeria (CLN) is currently an Associate Professor in the Department of Library and Information Science, Faculty of Education, Rivers State University, PMB 5080, Nkpolu-Oroworukwo, Port Harcourt, Nigeria. She holds a B. Agric (Animal Science) degree from University of Nigeria, Nsukka, an M.L.S from University of Maryland USA, a PGDTE (Postgraduate Diploma in Technical Education) from Rivers State University, Port Harcourt, Nigeria and a Ph.D in Library and Information Science from Imo State University, Owerri, Nigeria. Her areas of research interest include: Information Resources Development, Library and Information Management, Information Literacy and ICT Applications in Libraries and Information Centers.

NOTE: I hereby commend the Chief Editor of IJRISAT and his team. You are the best!!! Please, keep up the good job of prompt delivery"