

Integrating Ict Software in the Teaching of Accounting in Tertiary Institutions in Rivers State

Woko, I. B. Boniface, PhD¹, Williams, Cheta, PhD²

¹*Internal Audit Department, University of Port Harcourt*

²*Faculty of Education, University of Port Harcourt*

ABSTRACT: The purpose of this study was to ascertain the extent to which Accounting lecturers use ICT in the teaching of Accounting in tertiary institutions in Rivers State. Three research questions were used to obtain relevant responses needed for the study; accordingly, three hypotheses were also formulated. The research design was the descriptive survey design and the sample size was seventy (70) Accounting lecturers that exist in the five tertiary institutions used for the study. The instrument used was Information and Communication Technology Teaching Accounting of Accounting Questionnaire (ICTTAAQ) made up of three major parts; A: Demographics; B (three sections) addressing relevant research questions. The ICTTAAQ met both validity and reliability criteria. The study revealed among other things that Accounting lecturers do not make enough use of Accounting software in the teaching of Accounting. Consequently, the three research hypotheses that guided the study were also rejected. The study recommended that based on the role ICT and Accounting software in the improvement of teaching of Accounting, Management of tertiary institutions should provide ICT tools and accounting libraries, and where they are available, Accounting lecturers should utilize them properly to enhance professional competence.

Keywords: Methods, Management, Applications

I. BACKGROUND OF STUDY

In recent years there has been a groundswell of interest in how computers and the Internet can best be harnessed to improve the efficiency and effectiveness of education at all levels and in both formal and non-formal settings. But ICTs are more than just these technologies; older technologies such as the telephone, radio and television, although now given less attention, have a longer and richer history as instructional tools. For instance, radio and television have for over forty years been used for open and distance learning, although print remains the cheapest, most accessible and therefore most dominant delivery mechanism in both developed and developing countries. (Gupta,2009). According to French (1996) in Nwite (2007), information and communication technology is a broad based technology which includes methods, managements and applications that are employed in the creation, storage, manipulation and communication of information. Obanya (2002) views information communication technology as a broad concept that has to do with the harnessing of the process, the methods and the product of electronic and communication related technologies (and other related resources in today's knowledge – driven society), for enhancing the availability, the spread and efficiency of a set of programmed activities geared towards the achievement of clearly defined goals.

Our world is changing, so ICT is central to this change. Amutha (2014) observed that the use of ICT in education develops higher order skills such as collaborating across time and place and solving real world problems. It improves the perception and understanding of the world of the student. ICT can be used to prepare the workforce for the information society and the new global economy. The researcher based his study on both primary and secondary data covered only three months period. Secondary data and information are collected from the annual reports of the department of statistics, books, journals and websites. Class interval technique was used to analyze the age, family size and experience. Percentage analysis, averages, ranking method, standard deviation, chi-square tests, Cramer's V and probability analysis were used for the analysis.

The same study showed that majority of the teachers are most knowledgeable in word processing was ranked first followed by emailing. Well-informed in internet browsing was ranked third, proficiency in spreadsheets ranked fourth. Information in statistical tools and presentation tools were ranked fifth and sixth respectively. To know the teacher's attitude and usage of ICT in teaching/learning, many teachers have also expressed the opinion that incorporating ICT in teaching is time consuming (59.29%), Lack of skill (20.35%), Syllabus pressure (12.39%) and needs access to a lot of infrastructure (7.96). They want the institution to recognize teachers who use ICT and provide the necessary infrastructure so that others who are nonusers of ICT will be motivated. The result of chi-square-test revealed that there is no significant difference between teacher's attitude and usage of ICT in teaching/learning and barriers in implementing ICT in higher education. Amutha (2014) concluded that in this present age ICT tools are absolutely necessary to the teaching and learning in institutions of higher educations.

The development of information and communication technology in tertiary education is faced with many challenges. One of these challenges is teachers' failure to help the students develop the capacities necessary to take full advantage of the opportunities offered by ICTs. They also need to acquaint the students with the strategies and mechanism of ICT. So far, ICTs have not been used as a way of acquiring new knowledge and skills in secondary schools due to inadequacy of curriculum content and limited access to ICTs. Other challenges include inadequate funding, lack of basic infrastructure, lack of qualified personnel and lack of policy formulation and implementation machinery. These positions are in tandem with the works of Gbadamasi (2006) and Ibadin (2001).

Evidently, ICT is not just the bloom of the education system, but also the primary and secondary options required to improve effective and meaningful interaction between teachers and students of tertiary schools. It has the power to enable students enjoy things that they would normally find time-consuming and difficult. ICT is a teaching tool that improves the quality of secondary school student's education and support teachers' work inside and beyond the classroom. There is no gainsaying the fact that the application of ICT in tertiary education will aid effective teaching and learning and help the students acquire necessary skills that will enable them contribute to the growth, improvement and development of the nation socially and economically.

1.2 Statement of Problem

The presence of ICT and electronic information network, courtesy of the digital age has opened to researchers, academics and students opportunities that will support teaching and learning specifically, ICT promotes basic changes in pedagogy thereby overcome the hurdles of time and place by introducing new choices and opportunities for students and teachers through endless research and learning on the internet; through its multimedia facet it helps the teacher to use appropriate illustrations. This visual stimulus enables students to retain such knowledge and illustrations for a considerable period of time. Also it fosters enquiry and exploration of facts, and adopt new approaches to teaching. This innovative approach helps to increase teachers' effectiveness, to boost learning. The role of ICT in teaching and learning can be considered to be limitless.

The conventional approach to teaching seems to be the order of the day even in the presence of ICT and related software that should support teaching and learning. It is insufficient to advocate ICT in education but crux of lies on their integration where available. Do Accounting lecturers really integrate them to support their teaching and learning considering their rich potentials of effectiveness, efficiency, reliability, speed and accuracy, amongst others? This and others informed the quest to uncover the present state of usage of these ICTs by lecturers that teach Accounting in tertiary institutions in Rivers State.

1.3 Objectives

The following objectives guided the study:

- a. To determine the extent to which Accounting lecturers make use of Accounting software in the teaching of Accounting in tertiary institutions in Rivers State.
- b. To ascertain the extent to which lecturers make use of audio-visual aids in the teaching of Accounting in tertiary institutions in Rivers State.
- c. To confirm the extent to which accounting lecturers use laboratories in the teaching of Accounting in tertiary institutions in Rivers State.

1.4 Research Questions

The following research questions have been posed for the study:

- a. To what extent do Accounting lecturers make use of Accounting software in the teaching of Accounting in tertiary institutions in Rivers State?
- b. To what extent do Accounting lecturers make use of audio-visual aids in the teaching of Accounting in tertiary institutions in Rivers State?
- c. To what extent do Accounting lecturers make use of laboratories in the teaching of Accounting in tertiary institutions in Rivers State?

1.5 Hypotheses

The following null hypotheses were used for the study:

- a. There is no significant relationship between the teaching of Accounting and the use of ICT software in tertiary institutions in Rivers State.
- b. There is no significant relationship between the teaching of Accounting and the use of audio-visual aids in the teaching of Accounting in tertiary institutions in Rivers State.
- c. There is no significant relationship between the teaching of Accounting and the use of ICT libraries in tertiary institutions in Rivers State.

II. METHODOLOGY

Research Design:

This study adopts the descriptive survey design. This design aims at collecting the required data, describing it systematically in terms of the characteristics of the population (Nworgu, 2006). The essence is to ascertain the extent of usage of ICT by Accounting lecturers in this present ICT age.

Population of Study:

The population of this study is made up of all accounting lecturers in five (5) tertiary institutions in Rivers State namely:

- University of Port Harcourt, Choba, Port Harcourt;
- Rivers State University of Science and Technology, Nkpolu, Port Harcourt;
- Ignatius Ajuru University of Education, Rumuolumeni, Port Harcourt;
- Federal College of Education (Technical), Omoku, Port Harcourt; and
- Rivers State College of Arts and Science, Rumuola, Port Harcourt.

The total population of Accounting lecturers in the institutions is seventy (70) in number as shown in the table below:

Table 3.1: Population of Study

S/N	Name of Institution	Total
1	University of Port Harcourt, Choba, Port Harcourt	16
2	Rivers State University of Science and Technology, Nkpolu, Port Harcourt	12
3	Ignatius Ajuru University of Education, Rumuolumeni, Port Harcourt	18
4	Federal College of Education (Technical), Omoku, Port Harcourt	12
5	Rivers State College of Arts and Science, Rumuola, Port Harcourt	12
Total		70

Source: Establishment Divisions of the various Institutions (2015)

2.2 Sample Size:

Considering the number of the population, the same was used as the sample size for the study.

2.3 Instrumentation:

A well-structured questionnaire was used as the major instrument for primary data collection. This questionnaire was referred to as ICTTAAQ. The instrument has two distinct sessions, Parts A and B. Part A is made up of demographic variables of respondents such as age, sex, years of service, and academic qualifications while Part B is made of test items relating to the variables of the study.

The instrument was structured in the Likert-like pattern with responses as Very Large Extent, Large Extent, Low Extent, Very Low Extent. Accordingly, various weights were assigned weights as follows: Very Large Extent (VLa E) 4 points; Large Extent (LaE) 3 points; Low Extent (LoE) 2 points; and Very Low Extent (VLoE) 1 point. The primary data generated were collected and analyzed using simple percentage method, means, and the Chi Square statistic. The simple percentage and means was used to analyze the research questions. The criterion mean of 2.5 was used in taking decisions. The items responses which was ≥ 2.5 was considered to be effective to a large extent, whereas the items which was < 2.5 were be considered effective to a low extent. The criterion mean were obtained as follows:

$$\text{Mean (X)} \bar{X} \text{Responses} = \frac{4+3+2+1}{4} = 10/4 = 2.5$$

The hypotheses were tested using Chi Square (χ^2) statistic at 0.05 level of significance.

III. DATA ANALYSIS

Demographic Data

Matrix	Level				
	<35	>35<40	>40<45	>45<50	>50
Age	2	8	11	12	25
Sex	Male	Female			
	48	22			
Years of Service	<10	>10<15	>15<20	>20<25	>25
	10	11	12	18	19
Academic Qualification	Masters	PhD			
	42	28			

Table 2: Research Questions

Research Question	Pooled Mean (\bar{X}_p)	Criterion Mean (\bar{X}_c)	Comparison	Remark
1	1.51	2.50	$\bar{X}_p < \bar{X}_c$	Effective to a low extent
2	1.84	2.50	$\bar{X}_p < \bar{X}_c$	Effective to a low extent

3	1.81	2.50	$\bar{X}_p < \bar{X}_c$	Effective to a low extent
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Table 3: Hypotheses

Hypotheses (H_0)	χ^2 Computed	χ^2 Critical	Comparison	Decision
1	2,172.94	12.92	$\bar{X}^2_{\text{calc}} > \bar{X}^2_{\text{tab}}$	Reject H_A
2	1,532.69	12.92	$\bar{X}^2_{\text{calc}} > \bar{X}^2_{\text{tab}}$	Reject H_A
3	1,921.99	12.92	$\bar{X}^2_{\text{calc}} > \bar{X}^2_{\text{tab}}$	Reject H_A

IV. FINDINGS

In the analysis of the first research question which states: '*To what extent do lecturers make use of accounting software in the teaching of Accounting in tertiary institutions in Rivers State?*' the study showed that all the four questionnaire items analyzed had weighted mean of less than 2.50 which is the criterion mean. The pooled mean of 1.51 is also less than the criterion mean. All of this implies that computers and accounting software had not influenced and improved the teaching of Accounting in tertiary institutions in Rivers State. This is further buttressed by the result of the first hypothesis tested. The result showed that the calculated Chi Square value ($\bar{X}^2_{\text{calc}} = 2,172.04$) was far greater than its table value ($\bar{X}^2_{\text{tab}} = 12.92$). Hence, the null hypothesis was rejected. This is in contrast with the findings of Williams (2008), Singh (2011), Ola (2011) and others who continuously emphasized that computers greatly facilitate the teaching in schools at all levels.

The findings from the analysis of research question two which states: '*To what extent do lecturers use audio-visual aids in the teaching of Accounting in tertiary institutions in Rivers State?*', the study showed that all the three questionnaire items analyzed had a weighted means of less than the criterion mean for effectiveness. The pooled mean of 1.84 is also less than the criterion mean of 2.50. This made us to posit that though audio-visual aids has a high capacity to improve the teaching of the subject, these materials were not available and as such the teaching of the subject had not improved. Furthermore, the test of hypothesis two showed that the value of Chi Square calculated ($\bar{X}^2_{\text{calc}} = 1,532.69$) is far greater than its table or critical value ($\bar{X}^2_{\text{tab}} = 12.92$). Thus it was rejected at 0.05 level of significance and concluded that the use of audio-visual aids does not significantly impact on the teaching of Accounting in tertiary institutions in Rivers State. Again, this runs contrary to the finding of Singh (2008) who opined that audio-visual aids have very strong influence on teaching as it makes it easier and faster.

In the analysis of the third research question which enquires: '*To what extent do lecturers make use of Accounting laboratories in the teaching of Accounting in tertiary institutions in Rivers State?*', the study showed that in all the items analyzed the weighted mean were less than 2.50. The pooled mean of 1.81 is also less than the criterion mean. This suggests that accounting laboratories had not assisted to improve the teaching of Accounting in tertiary institutions in Rivers State. This is further buttressed by the result of the third hypothesis tested. The result showed that the calculated Chi Square value ($\bar{X}^2_{\text{calc}} = 1,921.29$) was far greater than its table value ($\bar{X}^2_{\text{tab}} = 12.92$). Hence the hypothesis was rejected. This is in contrast with the findings of Ola (2011) and others who affirmed accounting laboratories facilitate the teaching in schools at all levels.

4.2 Conclusion

The analysis of the three research questions and hypotheses which precipitated in the discussion of the findings of the study in the preceding section have shown that the level of utilization of information and communication technology system in teaching in the tertiary institutions in Rivers State is ridiculously low, giving the age and time we are in. Hence, we concluded that ICT systems have made no remarkable impact in terms of improvement in teaching and learning in the study milieu. This conclusion, as we have noted in the preceding section, is contrary to the generally held opinion, and the findings of past and contemporary studies that ICT systems undoubtedly, have over the years enhanced teaching and learning in academic institutions as well as all spheres of life. The reason why our conclusion failed to align with this is because of the obvious fact that in all the academic institutions studied, none had a functioning accounting laboratory. Computers, video projectors, and other audio visual aids were not used for the study of accounting at all. Even in some Universities such as University of Port Harcourt where it was observed that it had an accounting laboratory, the facility is not in use. Also, there is an ICT personnel in the laboratory but since it is not in use, the impact is insignificant. In all the institutions, the old traditional method of teaching of the subject still prevails.

4.3 Recommendations

The recommendations made here stem from the findings of the study:

- The study recommends skills development on the part of lecturers in the use of ICT to facilitate teaching. The reason is that basic knowledge of ICT tools is key to full integration in modern day teaching.
- Accounting lecturers should learn to explore the potentials inherent in Accounting audio-visual aids if they must improve on their professional skills.

- c. Finally, there is need for Accounting laboratories in all our tertiary institutions, and where they exist, they should be put into proper use so that they do not serve for fancy only, defeating the aim of their presence.

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