

UTILIZATION OF INFORMATION TECHNOLOGY AND BUSINESS TEACHERS' EFFECTIVENESS IN TERTIARY INSTITUTIONS IN AKWA IBOM STATE

BY

IBET MONDAY TOM & UDIDA, FABIAN UGBE

ibetmonday7@gmail.com, udidafabian@gmail.com

08063712717, 09038061815

Department of Vocational Education, University of Calabar, Calabar

Abstract

The study was conducted to investigate the utilization of information technology and business teachers' effectiveness in tertiary institutions in Akwa-Ibom State. Survey design as adopted for the study. The population of the study comprised of 65 business teachers in the four-government owned tertiary institution in Akwa-Ibom State. Since the population is not large, all the 65 business teachers constituted the sample of the study. Instrument used for data collection was the questionnaire titled "IT Utilization and Business Teachers Effectiveness Questionnaire (ITUBTEQ)" validated by three experts. Analysis of Variance (ANOVA) was used to analyze the data collected from the study. The result of the analysis revealed that there is a significant influence of the utilization of computer and spreadsheet on business teachers' effectiveness. It was concluded that IT utilization enhances business teachers' effectiveness in tertiary institutions in Akwa-Ibom State.

Key words: Information Technology, Utilization, Business Teachers, Effectiveness.

Introduction

The emergence of information technology (IT) has totally revolutionized the way we access, process, store, retrieve and disseminate information within organizations or across the globe whether it is in vocal, pictorial, textual, numeric or macro electric based, hence (IT) is not a topical issue in Nigeria. It may not be because it is relatively new in this part of the world, but because (IT) encompasses range of technologies and application systems of micro-processors that have profound impact on the society and its way of life. Information technology (IT) revolution is generally affecting the nature of learning and the production of knowledge and transforming the world in unexpected way (Arunachalem, 2005). This has foliated the paradigm shift from the traditional instructional martial or traditional pedagogical methods to a more modern and innovative technological based teaching and learning methods. The impact of information technology is becoming more pronounced worldwide such that rarely is anything mentioned in any area of human endeavour without reference to this type of technology.

The national policy on information, technology (Federal Republic of Nigeria, 2004) envisaged the integration of information and communication technology (IT) at all level of educational institutions. This was to play leading role in the actualization of the goals of education as stated in the national policy on education. The goal which include the contribution to national development through high manpower training development of individual intellectual

capability to understand their immaculate environment, provision of opportunities for the acquisition of physical and intellectual skill for individuals to be self-reliant and useful members of the society to which they belong.

IT can be identified as the bedrock of national survival and development in a rapid changing global environment. IT is an umbrella term that includes communication devices or applications such as radio, television, caller phone, computer hardware and software and networking and satellite system and services associated with them. It is a term used to denote a wide range of services, application and technologies using various type of equipment and software running over telecommunication networks (Yusuf, 2005). Information Communication technology, according to Adewoyin (2009) is the new communication and computing technology, used for creating, storing, selecting, changing, developing, retrieving and displaying many kinds of information.

Information technology is daily giving rise to new concepts, new ideas and making impact not only in the industries/businesses but also in the education sector. Information technology has simplified education through the application of electronics media, internet etc. according to Ndukwe (2006), the production and introduction of calculators and computers in the education system worldwide has helped in simplifying teaching and learning in schools, thereby promoting national stability and economic survival. Today, organizations such as educational research institutions as well as individuals consult the internet for accurate and up to-date information. The indispensability of information technology in the teaching and learning of business cannot be over emphasized. Abolade and Yusuf (2005) describe information technology as a powerful tool in the teaching and learning process. Information technology has the viable potentials to accelerate the acquisition of basic skills and knowledge required in motivating the students to learn. Information technology offers the teachers of business studies new role that is preparing learners to manipulate information for solving business and economic problems. Olalere (2005) maintained that information technology has been found very useful in space exploration, engineering, banking and other fields but its greatest influence has been found in the field of education where it has helped tremendously to revolutionize teaching and learning.

A good number of researches have shown that the quality of learning and teaching can be significantly enhanced when IT is approached and utilized as an intellectual multi-tool. Teaching is an attempt to assist someone to acquire skills, attitudes, ideas, appreciation and change behaviour. The teacher's job therefore is to influence desirable change in the behaviour in learners using hardware and software such as video, computer, internet, radio learning on the other way is a process of gaining knowledge or acquiring skills or understanding new thing and a better way of carrying it out. Considering the status of business education and the place it occupies in the national development. Business teachers should possess relevant IT skills that will enhance effective instructional delivering.

However, it has been observed that despite the importance of IT for teachers in improving knowledge and their effectiveness in teaching, business teachers are still ineffective in their instructional delivery because they lack IT skills needed. Majority of business teachers in our tertiary institutions do not have fundamental knowledge of IT skills thus, cannot harness the numerous benefits IT offers. This is invariably jeopardizing the fundamental objectives of business education, vision and mission and policy as stated in the National policy of IT (2001). Students taught by these set of business teachers cannot compete favourably with their counterpart in the world of work as they have little or no knowledge of the workings of IT since they were not taught with IT tools.

Aimola (2010) blamed this on the dearth of IT facilities in most tertiary institutions. The high cost of computers and teaching aids ownership as a major constraint to acquisition of the items. Access to affordable and reliable internet connectivity is only available in a few institutions. Even then, power fluctuations have considerably reduced the reliability of the access and inadequate bandwidth also makes access difficult. It is quite disheartening that despite the efforts of government in ensuring the provisions of IT tools to tertiary institution to enhance teaching, these facilities are allowing to get damaged due inadequate utilization by business teacher hence, the problems of ineffectiveness persist. No wonder Iwiyi (2007) pointed out that computer acquisition and use is an important aspect of the teaching and learning process. If a teacher is to function effectively, and meet the challenges of the 21st century, the teacher education process must make adequate provision of individualized computer training for would be business teachers, for a better output.

For business teachers to meet up with the demands of the global world, they must be dynamic to innovations in the educational system. This will enable business, subjects to achieve the objectives for which it was established. However, the researcher intends to investigate the influence of utilization of information technology on business teachers' effectiveness in tertiary institutions in Akwa Ibom State, Nigeria.

There is an increasing research on the effectiveness and benefit of the integration of computer technology in education in recent years. Sheffield (1996) stated that because of the recent developments in technology, computers have become more important teaching tools in the classroom. As Vanfossen (2001), points out, there are many supporters who claim that there are many benefits of computer use in the classroom such as the ability to break down the classroom's physical limitations and expanding students' experience, development of students' inquiry and analytical skills and expanding students' experiences with usual technology. It is considered that technology is the main tool for the student' learning developments and the computers are the main technology support as a tool for effective learning and teaching process (Usman & Usun, 2004).

Ogundele and Etejere (2013) in their study on the relationship between computer literacy and teacher's job effectiveness of secondary schools in Kwara State, Nigeria revealed in their findings that utilization of computers in teaching learning processes invariably aid teacher's job effectiveness, such as job performance, record keeping, school discipline and supports students' academic performance. It also revealed that computer literate teachers perform better in the schools than non- computer literate teachers in the schools by making use of computer in driving their teaching.

The result is supported by Sofoluwe (2007) who pointed out that computer utilization by teachers will enhance computer aided instruction, and that the knowledge of computers also aid effective data processing, storing, outputting, and retrieving of information in the school's system. Again, the findings were supported by Fashiku (2007) who observed that knowledge of computers would aid effective management of information systems in the schools and it would aid effective reason making processes which eventually make administrating of schools effective. Ameh (2002) stated that the knowledge of computer operational and technical skills enables the teachers to have accurate student data on students' enrolments progression and results, school events and other statutory and non-statutory records that may be recorded for quick decision making in the schools with easy availability. Likewise, Whitworth & Benson (2003) point out that, within the business studies, computer has served a dual role as an

important instructional tool that may have a significant effect on the global, political, social and economic functioning of society. According to them, as a method or topic instruction, computers and technology may have significant impacts on business studies education.

A research suggests that teachers also have positive attitude towards computer use in education. Asan (2003) examined that computers attitude of 265 pre-serves teachers majoring in science education and business education. The findings of the study indicated that pre-service teachers had positive attitudes towards computer and felt quite comfortable with computers. Accordingly, the proficiency of teachers in using computer seems very low. Asan (2003) studied elementary school teachers' perception and attitudes about computer and the role of computer education. The results indicated that many teachers were not computer users and the computer literacy level of teachers was very low. The result also indicated that 39 percent elementary school teachers in this study did not feel that they were competent in using computer technologies and majority (65%) of teachers were not familiar with computer technologies.

Akpınar (2010) study showed that 50% of teachers do not use the computer to support teaching in educational process. Akpınar (2010) states that majority of teacher use traditional methods to cope with the learning problems of students rather than the computer-based teaching methods. Gomleksiz (2004) points out that although teachers have positive attitude towards the use of computer, they cannot use computer at the desired level.

On the other hand, as stated above, the utilization of computer is very high in American Schools. Thus, it is expected that all teachers including business studies teachers might be able to integrate computer-based instructional studies into their teaching. However, a study conducted in the state of Missouri among middle school business studies teachers indicated that only half of the participants used the computer in the classroom. Another survey, conducted on secondary business studies teachers in the state of Indiana, indicated that the majority (more than 85%) of teachers who participated in the survey were employing computer in some way for professional use including planning research and so forth (Vanfossen, 2009). The data showed that 61.5% of Turkish teachers encourage students to use the computer to gather background information while 38.5% teachers themselves use the computer frequently for this purpose. The data indicated that the second common reason for using the computer among teachers is to gather information for lesson planning. Slightly, more than half of the respondents indicated that they use the computer for this purpose occasionally while almost 20% of them use the computer frequently for this purpose. Therefore, teachers use computer basically for personal purposes such as to find information and other resources and to gather background information for planning rather than in teaching and learning activities in the classroom.

According to Smerdon and Lanahan (2010) advances in modern computer technology have changed the way we do many things including the way we learn, study and communicate. What goes on in the classroom today is impacted upon by the computer technology and will likely affect the skills that today's children learn in schools and the way they are taught to function in the world (Kashorda, Waema, Omosa & Kyalo, 2007). According to Jenkins and Springar (2009) computer is a willing instructional tool which the teacher can use to present information and manage class activities to help students achieve their educational goals. Bates (1995) notes that achieving quality in teaching and learning depends substantially on making learning resources such as the computer as accessible and interactive as possible. Ozigi (2007) found in a study on influence of computer on teachers' effectiveness in secondary schools that teachers exposed to workshop and seminars on the use of computer systems were more effective

in secondary schools. Most of the teaching job could be easily done with the use of computer system. In fact, fatigue and other factors are reduced to the barest minimum.

Spreadsheets have been around since the early 1980s and although not designed as an educational tool, have been used in mathematics classrooms since they first became available (Jones, 2005). The potential of spreadsheet as an instructional does not seem to impact on students learning only, but teachers as well by enhancing and extending their knowledge of the subject matter and influencing their pedagogies and classroom management (Jones, 2005). Niess, Sadri & Lee (2007) indicated that teachers who are able to design and enact spreadsheet lessons experience elementary concepts of business studies modelling expand their own conception of teaching with spreadsheet, investigate and expand their knowledge of instructional strategies for integrating spreadsheet learning activities develop their own knowledge and skills of spreadsheets as tools for exploring and teaching business studies, and explore curricular materials that support learning with about spreadsheet over an extended period of time. This dissection exposes the importance of teachers' strategic thinking and action with respect to integrating technologies as learning tool in business studies instruction. Niess, Vanzee and Gillowilse (2010-2011) also indicated that spreadsheets contain features for modelling and analysing change. Providing teachers with tools that support business studies concepts and processes for accurate analysis, spreadsheet has been used as a tool for teaching and learning business studies to provide teachers with opportunities to developing their personal knowledge and skills for teaching with technology and promote student in-depth business studies concept formation and learning.

According to Mantei (2003), spreadsheet help teachers and students organize, calculate report and chart numeric data. Spread sheets are designed to organizes and manipulate numerical data, a term that stems from an accountant's ledger for keeping records (Roblyer & Doering, 2012). Spreadsheet allows teachers to complete and update essential calculations quickly organize displays of information and enable students to visualize the impact of change in numbers (e.g. charts and graphs), increase motivation to work with figures and make working with numbers more fun and engaging for students (Roblyer & Doering, 2012).

Studies have shown that spreadsheets can be useful tools and teachers who use them believe they help students better understand the concepts behind statistical data (Roblyer & Doering, 2012). Abramovich and Nabors (2007) found that when teachers used spreadsheets-based manipulations and numeric approaches to variety of word problems, they generated new meanings. Uses of spreadsheet are often used in math and science classrooms, but increasingly teachers use them to span all content areas including business studies and language arts. We're not there yet, however, for "despite its rising popularity, the spreadsheet has still a long way to go before becoming a universal tool for teaching and learning and many opportunities for its application have get to be explored" (Baker & Sugden, 2003).

In 2000, one study focused on the benefits of increased spreadsheet usage for effective instruction among business studies teachers particularly in problems solving skills (Ethman 2000). Another study showed how business schools would do well to integrate more spreadsheet skills for financial analysis, as students find the standard textbook approach to it stale and unexciting (Maher, Shooley, & Fry, 2001). According to Roblyer and Doering, 2012, with spreadsheets teachers can prepare classroom instructional materials or perform calculation they would otherwise do manually. Teachers can integrate spreadsheets into classroom instruction

through demonstrations of concepts, creation of student worksheet products, support for problem-solving and decision-making, storing and analysing data and projections and simulation.

The knowledge of IT and the capacity to harness its possibilities as a learning tool is now a requirement for participation in our evolving world. The wide availability of personal computers, wireless hand-held mobile PCs together with the internet, email, multimedia and various educational literature retrieval applications has changed the face of teaching and learning in recent times. Academics now need to search select, store and judge information as well as create it. Educators now find that the traditional methods of managing education and transmitting knowledge and skills are inadequate in the new technological environment. The realization of the benefits of IT in the educational process to a large extent depends on the teachers. They need to be aware of, and understand, the innovative potential of the technology that is available for their research; teaching and the need to develop specific, appropriate and new competences to cope with the technological challenges in their workplace

It has however been observed that in universities in Akwa Ibom State, IT usage among business teachers in the teaching and learning situation is still very minimal. A good number of business teachers are far from being literate in IT and therefore fail to enjoy maximally the benefits it offers for knowledge creation. Most business teachers play avoidance techniques in the utilization of IT. They distance themselves from any computer related activities and training because of fear, ignorance, negative perception or inferiority complex. They still present papers manually without using the projectors and patronize road side cybercafé for the utilization of computer, e-mail and other internet services. It is obvious that such business teachers still find it extremely difficult to deliver the appropriate education and training required by the information age. This informed the researcher's decision to seek to determine the utilization of information technology and business teachers' effectiveness in tertiary institutions in Akwa Ibom State, Nigeria.

The major purpose of this study is to determine the utilization of information technology and business teachers' effectiveness. Specifically, the study aimed at determining whether.

1. Computer influence business teachers' effectiveness
2. Spreadsheet utilization influence business teachers' effectiveness.

This research answered the following research questions

1. How does computer utilization influence business teachers' effectiveness?
2. How does spreadsheet utilization influence business teachers' effectiveness?

The following hypotheses are formulated for the study

1. There is no significant influence of Computer utilization on business teachers' effectiveness.
2. There is no significant influence of spreadsheet utilization on business teachers' effectiveness.

Method

The research design adopted for this study was survey design. According to Osuala (1986), Survey design identifies the present conditions and points to present needs. It is oriented towards the determination of status of a given phenomenon in its natural setting. The design was

chosen because the researcher intends to determine the situation of IT utilization at the time of investigation and how it influence business teachers' effectiveness in Akwa Ibom State.

Results

The results obtained from the study are presented in appropriate tables according to the research hypotheses.

Research hypothesis one

There is no significant influence of computer utilization on business teachers' effectiveness.

The result of the analysis is presented in Table 1.

Table 1

Summary of One-way analysis of variance of the influence of computer utilization on business teachers' effectiveness (n=65)

Variables	N	\bar{X}	SD
Low	16	1.81	0.750
Moderate	22	2.14	0.774
High	27	2.41	0.694
Total	65	2.17	0.762

Source of Variation	Sum of squares	Degree of freedom	Mean square	F-ratio	p-level
Bet. Groups	3.592	2	1.796	3.319	0.043
Wit. Groups	33.547	62	0.541		
Total	37.138	64			

Significant at .05 level, df =2, 62; critical F-value=3.13.

The result of the data analysis in table 1 shows that the calculated F-value (3.319) is greater than the critical F-value (3.13) at .05 level of significance using 2 and 62 degrees of freedom. Based on this result, the null hypothesis was rejected. This means that there is a significant influence of computer utilization on business teachers' effectiveness. With this result, the null hypothesis was rejected.

Research hypothesis two

There is no significant influence of spreadsheet utilization on business teachers' effectiveness.

The result of the analysis is presented in Table 2.

Table 2

Summary of One-way analysis of variance of the influence of spread sheet utilization on business teachers' effectiveness (n=65)

Variables	N	\bar{X}	SD
Low	21	1.86	0.793
Moderate	27	2.41	0.694
High	17	2.18	0.728
Total	65	2.17	0.762

Source of Variation	Sum of squares	Degree of freedom	Mean square	F-ratio	p-level
Bet. Groups	3.578	2	1.789	3.305	0.043
Wit. Groups	33.561	62	0.541		
Total	37.138	64			

Significant at .05 level, df = 2, 62; critical F-value = 3.13.

The result of the data analysis in Table 2 shows that the calculated F-value (3.305) is greater than the critical F-value (3.13) at .05 level of significance using 2 and 62 degrees of freedom. Based on this result, the null hypothesis was rejected. This means that there is a significant influence of spread sheet utilization on business teachers' effectiveness. With this result, the null hypothesis was rejected.

Discussion of findings

The result of the analysis of this hypothesis revealed that computer utilization has a significant influence on business teachers' effectiveness. The finding implies that business teachers who utilize computers will enhance their effectiveness. This position is affirmed by Ogundele and Etejere (2013) study that utilization of computers in teaching learning processes invariably aid teachers' job effectiveness such as job performance, record keeping and supports students' academic performance. It also agrees with the views of Ameh (2002) that the knowledge of computer operational and technical skills enables the teachers to have accurate students' data on students' enrolments progression and record, schools' events and other statutory and non-statutory records that may be recorded for quick decision-making in the schools with easy availability.

The finding also supports Bates (1995) position that achieving quality in teaching and learning depends substantially on making learning resources such as the computer as accessible and interactive as possible. In the light of the above supports to this finding, it can be deduced that business teachers' utilization of computers enhances their performance. The finding is also in agreement with the views of Roblyer and Doering (2012) that spread sheet allows teachers to complete and update essential calculations quickly, organize display of information and enable students to visualize the impact of change in numbers, increase motivation to work with figures and make working with numbers more fun and engaging for students. The finding is also in line with Baker and Sugden (2003) that uses of spreadsheet are often used in math and science classrooms, but increasingly teachers use them to span all content areas including business studies and language arts.

Summary

The study was conducted to investigate the utilization of information technology on business teachers' effectiveness in tertiary institutions in Akwa Ibom State. Specifically, the study aimed at investigating whether computers and spreadsheet influence business teachers' effectiveness in tertiary institutions in Akwa Ibom State. Based on the findings, it was summarized that computers and spreadsheet significantly influence business teachers' effectiveness.

Conclusions

Based on the findings made, it is concluded that teachers' effectiveness can be enhanced through the utilization of information technology and that the utilisation of information technology can be possible with stable power supply. It is also concluded that teachers' utilisation of spreadsheet can be enhanced when they undergo training.

Recommendations

Based on the findings made, the following recommendations are made:

1. The government should see the need to provide computers and other devices to lecturers, as well as ensure stable power supply, and provide technical support for maintenance of IT facilities.
2. University managers should urgently put in place a programme of compulsory IT training on how to use the spreadsheet. The university management should make training mandatory for all academic staff as this will propel the uninterested or unwilling ones to undertake the training.

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