

## ANALYSIS OF INTERNET TECHNOLOGY COMPETENCIES REQUIRED BY LECTURERS OF OFFICE TECHNOLOGY AND MANAGEMENT FOR IMPROVED SECRETARIAL OUTCOMES IN TERTIARY INSTITUTIONS IN EKITI STATE

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### Abstract

*The study determined the internet technology competencies required by lecturers of office technology and management for teaching in tertiary institutions in Ekiti State. The study identified 20 critical Internet technology competencies required by OTM lecturers. Two research questions guided the study and one null hypothesis was tested using t-test at 0.05 level of significance. A descriptive survey research design was adopted for the study. The population of the study consisted of 45 lecturers of office technology and management drawn from four institutions in Ekiti State. The entire population was adopted as the sample in view of the small size. The instrument used for data collection was a 20 item questionnaire titled: Questionnaire on internet technology competencies required by lecturers of office technology and management for improved secretarial outcomes in tertiary institutions in Ekiti State (QITCISO) The findings revealed that OTM lecturers needs internet technology competencies in the use of internet soft wares to improve secretary' job performance through the use of cloud computing for sharing and storing files .It was further revealed that there was no significant difference between the mean response of male and female lecturers of OTM on the internet technology competencies needed for lecturing in tertiary institutions. It was concluded that OTM lecturers need to acquire relevant internet competencies to improve secretarial outcomes and students' academic performance. Thus, it was recommended amongst others that management should provide free internet access, regular training of lecturers where the identified internet competencies can be acquired.*

**Keywords:** Competency, Internet technology, Secretarial outcomes, Academic performance and Tertiary Institutions.

### Introduction

The art of teaching and learning was previously a meeting of the teacher and the students. This traditional learning process sees the teacher as the principal source of knowledge with the aid of instructional materials like chat, model and realia to enhance learning. As knowledge continued to expand, methods of teaching and means of knowledge and skill acquisition also continue to improve. This led to the incorporation of technology materials such as overhead projector, motion picture, firm strips into the teaching and learning process. In quest to search for improved ways of doing things especially in the area of knowledge acquisition, attention continued to shift from

three dimensional teaching aids such as models real objects to just a press of the button innovation in Information Communication Technology (ICT).

The emergency of ICT has brought rapid changes in the education industry. In recent years, this technological revolution has had a profound influence on the scope of teaching and learning activities. Thus, Asua and Munnaza (2015) mandated educators to utilize technological innovation benefits for good instructional delivery and promotion of learning through e-learning and e-learning platform. The standard and quality of a business educator's output are partly dependent on the extent of availability and use

of teaching and learning materials which technology has provided. The concept of library has been shifted from a building /room containing books and other printed matters, to hybrid or electronic library with a dynamic engine for the acquisition of knowledge and the creation of informed society.

The Federal Government acknowledges the fact that library is the heart of the education enterprises. The virtual library as a platform for sharing knowledge is aimed at rejuvenating Nigerian schools through the provision of e-books, e-journals and other information resources using technology. In support of the above, the FGN (2013) asserts that government shall provide appropriate ICT facilities to ensure that the benefits of e-learning permeates all levels of education in Nigeria through the National Virtual Library Project (NVLP).

In view of the foregoing and in a bid to produce competent secretarial graduates for the 21<sup>st</sup> century skills needed in global business environment, there is the need to analysis the internet technology competencies required by lecturers of office technology and management for improved secretarial outcomes in tertiary institutions for improved learning strategies of this category of secretaries through e-learning technologies; which will enable them to compete favourably with their counterparts. Internet technology is the use of internet facilities and other technological apparatus to widen learners' scope of knowledge. It is referred to as electronic learning. Internet technology have provided the learners with the opportunity of individualized, pace and sequential learning processes in order to achieve their personal learning goals and objectives in office technology and management programmes.

The office technology and management (OTM) programme is a programme of instruction which offers specialized instruction for office occupations and general business orientation. Baba and Akarahu (2012) assert that OTM is used as a comprehensive term referring to aspects of the educational process

involving, in addition to general education, the study of related technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of the economic and social life. Internet technologies have the potential to forever alter the way OTM instruction is constructed and disseminated, due to their ease of use, their open nature and their support for collaboration and communication. Sahin, Balta and Ercan (2010) remarked that internet technologies will foster collaborative learning, increase motivation and participation, help students to acquire skills for self-regulated learning and weave connections between formal and informal learning.

Onojetah (2014) opined that tremendous improvements in new technologies have certainly impacted the education sector in all societies. These improvements have been very pronounced and especially invaluable in OTM programmes. Similarly, Ekwue, Anyeabunam and Alfa (2016) opined that the increase use of new technologies in OTM makes teaching and learning increasingly flexible, multi-tasking and performance based, hence the need for OTM lecturers to acquire the necessary competencies needed to be able to teach effectively using the internet technology.

Competency has to do with the knowledge, skills, attitudes and judgment generally required for the successful performance of a task. Jimoh (2014) observed that lecturers' competencies should be of utmost concern when new subjects or media are introduced into the school system; this is because lecturers' experience and competence will affect their ability to implement these new innovations.

It is imperative to state that the ineffective use of new technologies by students and graduates of OTM are the result of inadequate competences in using new technologies for teaching. Umoru (2015) reported that secretarial graduates are believed not to possess the requisite work skills. This explains why most employers of labour in the nation consider the graduates as half-baked,

unemployable and unsuitable without further training (Ado, 2014). A situation as obtainable in Nigeria where business education graduates are not found fit for employment is no longer acceptable. This therefore informs the need for the acquisition of relevant competencies in internet technology by OTM lecturers which will help engender an outcome of real-world relevant skills in the graduates. To buttress this point, Jegede (2005) in Ajie-Uche and Jumbo (2016) opined that most Nigerian lecturers lack basic skills and competencies required for effective use of new technologies for teaching. Nwosu and Mbeazue (2016) remarked that most of the lecturers of OTM were not effectively taught with new technologies. Therefore, they had to be retrained in the proper use of new technologies in instructional delivery.

The issue at stake now is that, as a matter of fact, not all the OTM lecturers who claim to be computer literate have sufficient competence in the use of internet technologies and can demonstrate proficiency in imparting the knowledge to students. Fadare (2014) rightly observed that if an audit of office technology and management lecturers with competencies in new technologies is to be conducted today, the result will reveal that only a few lecturers possess the needed competencies. If an office technology and management lecturer is not capable of teaching with new technologies, he/she will very soon be threatened by professional obsolescence. The problem of this study therefore is to examine and analyse the internet technology competencies required by OTM lecturers for improved secretarial outcomes in tertiary institutions in Ekiti State.

Ezenwafor in Ido and Asuquo (2014) listed new technologies in teaching and learning business education subjects to include: Micro-computer with software applications to write or produce documents; and Internet browsing using search engines, window messengers, yahoo, chat room etc. Also, Wen (2000) summarized the internet components to include, e-mail, world wide web (www), File Transfer Protocol (FTP) and Telnet; which if

properly used will improve business education students academic performance.

In their contribution, Owenvbiugie and Ojewale (2014) remarked that non-availability of an acute supply of new technological equipment in tertiary institutions are likely to affect their application in teaching business subjects. Also, Aniebonan (2008) observed that lack of computer skills exist among faculties at universities in Nigeria. Thus, they are unable to incorporate the benefits derivable from internet technology in their teaching, research and service to the university community. This might have its attendant effect on the use of e-learning facilities for teaching business education courses by the lecturers. Onajite and Aina (2014) quoting Noeth and Volkon pointed out that attitude of leadership around technology use, sustained and intensive profound development and provision of adequate technology resources in the schools, among others are means that enable school leaders (Administrators) and lecturers to determine whether they are realizing their goals and to help them adjust where necessary.

For effective use of e-learning platform, business educators and students must be familiar with these new technologies and their components such as News, Encryption, Instant messaging or internet chat. Alake in Aina (2012) remarked that news is an excellent way of searching for information on a specific topic because it does not rely on databases but on personal know-how and knowledge of the people involved. Thus, Godwin, Edwin and Ekaenang, 2004 advised that in order to be qualified and fit into the new scheme of things, business educators must not only be aware but also equip themselves with the knowledge and skills appropriate for impacting the new skills and knowledge. Similarly, Onajite and Aina (2017) remarked that academic staff's effectiveness and competency in the use of ICT which will aid sustainability in instructional delivery in business education must be on the high side.

Research has shown that internet has become an integral part of the instructional process. This explains why researchers in the

information technology arena attests to the viability of the Internet as a resource that can revitalize teaching and learning. These reports comes from a cross-section of stakeholders in the educational sector: lecturers, students, parents and public officials (Kumari, 1998 in Fwangmut, 2016). The predominant call is to explore the vast resources of the internet for education and to create models of integration for lecturers to effectively and efficiently harness the potentials of the internet for teaching and learning.

Agomuo (2005) in Oguejiofor and Nwogu (2014) defines the internet as a world-wide system of computer networks in which users at one computer can. If they, have permission, get information from any other computer Mateja (2012) opines that the internet is essentially a large database where all different types of information can be passed and transmitted. The Internet has profoundly changed the way we perceive and interact with information in our everyday lives. Darejan (2015) reports that the internet is quickly reshaping the ways we relate to one another, communicate, educate and collaborate. The Internet is also modifying our modes of accessing information, deciphering, filtering and recompling it for practical use through applications such as world wide web, file transfer services, chat applications, cloud computing, file sharing, web 2.0 technologies, electronic mailing list, collaborative services, blogs, wikis, online survey tools, webcasting, podcasting, online portfolio, live streaming audio and video broadcast (Adeshina, Udoh, Ndomi, & Aliyu, 2013).

The UNESCO institute for information technologies in education (2003) in Bola and Ogunlade (2012) views internet technologies as the complex of hardware and software means for providing internet operation. Internet technologies are not limited to software and hardware alone, but also the human components which are integral part of the overall system of the internet. Internet technologies refer to any form of on-line technology or practices through which users create communities to convey information, ideas, independent learning, entertainment,

collaboration and personal messages and facilitates communication and interaction between individuals and groups (Lyashanko, 2016).

### **Statement of the Problem**

Most secretarial students in Ekiti State and Nigeria has acquired skills in schools and do possess hi-phones, i-pads, android phones that are internet-compliance. This seems to be an opportunity for them to perform excellently in the assigned tasks in their various organizations and increase their productivities and always search for relevant academic information that can assist them in their assigned tasks. Despite this, the use of e-learning facilities for improved job performance among secretaries and secretarial outcomes seems not to have achieved the expected goals regardless of its benefits at increasing secretaries' horizon. To this end, observation reveals that most secretarial lecturers do connect to the internet for other activities such as chatting, games, whatsapp, among others instead of being gainfully engaged in activities that could improve their knowledge and academic performance through internet technology

The question that arises is that: what are the competencies required by lecturers to improve secretarial students' academic and job performance through e-learning? It is on this background that the researchers are interested in finding out and analyse the internet technology competencies required by lecturers of office technology and management for teaching in tertiary institutions that can be employed to improve secretarial job and academic performance among secretarial students in public tertiary institutions in Ekiti State.

### **Purpose of the study**

The main purpose of the study was to determine the internet technology competencies required by lecturers' of office technology and management for teaching in tertiary institutions in Ekiti State for improving the secretarial output and academic performance in the selected public institutions

in Ekiti State. Specifically, the study determined:

1. The various internet technologies required by lecturers for improving the use of internet technologies and facilities among secretarial students in public institutions in Ekiti State for academic and job performance.
2. Lecturers' related internet competencies for improving secretarial outcome among secretarial students in public institutions in Ekiti State.
3. Students' related strategies for improving the use of e-learning facilities and technological competencies among secretaries in public institutions in Ekiti State.

### Research Questions

1. What are the internet technology competencies required by lecturers of office technology and management for improved secretarial outcomes in Polytechnics in tertiary institutions in Ekiti State?
2. What are the lecturer-related strategies required for improving internet technology competency of the secretary for improved job performance in public institutions in Ekiti State?

### Research Hypothesis

There is no significant difference in the mean response of male and female lecturers on the internet technology competencies required by lecturers of Office Technology and Management for teaching in tertiary institutions in Ekiti State.

### Methods

The descriptive survey design was used for the conduct of the study. The population of a study consisted of all lecturers of office technology and management drawn from the four accredited public institutions in Ekiti States. These institutions include: Ekiti State University, Ado; Federal University, Oye; College of Education, Ikere ; Federal Polytechnic Ado; Ekiti State There are 45 lecturers of OTM in the four accredited public institutions in the Ekiti States. The entire

population was used for the study since the population was not too large. There was therefore no sampling. The instrument used was the internet', Competencies Required by Office Technology and Management Lecturers Questionnaire (ITCROTMLQ). The questionnaire consisted of 20 items based on the purpose of the study and the research questions. The instrument was validated by two experts in the Department of test and measurement, Ekiti State University Ado Ekiti and one Chief lecturer in the Department of Office Technology and Management, Federal Polytechnic, Ado Ekiti. A pilot study was conducted at the Federal Polytechnic, Ado Ekiti, in order to establish the reliability of the instrument. Cronbach Alpha was used to determine the reliability of the instrument which yielded a reliability coefficient of 0.83.) the instrument was used to elicit responses on the two research questions. Each of the items was assigned four response options of Highly Required (HR-4 points), Moderately Required (MR-3 points), Slightly Required (SR-2 points) and Not Required (NR-1 point). The data collected were used to answer the two research questions.

The data collected were analyzed using the mean and standard deviation. The mean was used to answer the research questions while the standard deviation was used to determine the closeness or otherwise of the responses from the mean. Positive decision rule for this study was established at a mean of 2.50 and above while any mean less than that was regarded as negative. The null hypothesis stated was tested using the t-test at 0.05 level of significance. Hypothesis of no significant difference was accepted when the observed probability value was greater than or equal to 0.05 level of significance. Where the calculated probability value was less than 0.05 level of significance, the null hypothesis was not accepted.

**Research Question 1:** What are the internet technology competencies required by OTM lecturers for teaching in tertiary institutions in Ekiti State?

**Table 1:** Mean and standard deviation of responses on the internet technology competencies required by OTM lecturers for teaching.

S/N	Item Statements	X	SD	Remark
1.	Ability to search for information using the search engines on the web	3.11	1.2	required
2.	Ability to use hypertext markup language (HTML) editors to create educational web pages	3.06	0.95	required
3.	Ability to use the file transfer protocol to upload and download files	3.34	0.53	required
4.	Ability to mail teaching contents with attachment through the e-mail or list servers	3.05	0.68	required
5.	Ability to create hypermedia web pages	3.18	0.77	required
6.	Ability to use browsers to support access and navigation on the world wide web	3.10	0.62	required
7.	Ability to organize virtual conferences or discussion forums online	3.25	0.84	required
8.	Ability to create blogs and microblogs for publishing written materials	3.18	0.72	required
9.	Ability to use collaborative sites and software such as wikis for content creation and editing	3.34	0.50	required
10.	Ability to use social media platform such as Face book, YouTube, Twitter, Instagram etc. to post teaching contents.	3.26	0.49	required
11.	Ability to use cloud computing for storing and sharing files	3.40	0.63	required
12.	Ability to use the Wi-Fi to gain access to teaching resources via Internet	3.45	0.54	required
13.	Ability to create live streaming audio and video files (webcasting)	3.39	0.52	required
14.	Ability to create online digital audio and video files (podcasting or netcasting)	3.40	0.58	required
15.	Ability to create e-portfolio or digital portfolio for teaching purposes	3.38	0.49	required
	<b>Weighted average</b>	<b>3.26</b>	<b>0.67</b>	<b>required</b>

Table 1 above showed the responses of OTM lecturers in tertiary institutions in Ekiti State on the Internet technology competencies required for teaching. The result of the analysis revealed that all the competency items outline were required for teaching by OTM lecturers with a weighted mean of 3.26. Ability to use the Wi-Fi to gain access to teaching resources via internet was however rated high with a mean score of 3.45. The close range of the standard deviations showed

that the respondents were not very far from each other in their responses.

### Research Hypothesis

There is no significant difference in the mean response of male and less female lecturer on the internet technology competencies required by lecturer of Office Technology and Management for teaching in tertiary institutions in Ekiti State.

**Table 2:** Summary of t-test of the difference between the mean responses of male and female lecturers of OTM on the internet technology competencies required for teaching in tertiary institutions in Ekiti State.

Group	N	Mean	SD	t-cal	Df	p-value	Decision
<b>Male Lecturers</b>	44	3.22	0.26				
<b>Female Lecturers</b>	38	3.31	0.43	-1.265	80	0.210	Not rejected
P>0.05							

The data in Table 2 revealed that there are 20 OTM male lecturers and 25 females OTM lecturers. The male and female lecturers responses showed that internet technology competencies are required by OTM lecturers for teaching in the four selected tertiary

institutions (3.22; SD = 0.26) and (= 3.31; SD = 0.43). Their responses are close to the mean as the standard deviations are very low. The table revealed that there was no significant difference between the mean response of male and female lecturers of OTM on the internet technology, competencies needed for teaching

in tertiary ( $t_{80} -1.265, P>0.05$ ) Therefore, the null hypothesis that states that there is no significant difference between the mean response of male and female lecturers of OTM on the internet technology competencies needed for teaching in tertiary institutions in Ekiti State was not rejected. This implied that male and female OTM lecturers did not differ in their responses regarding the internet technology competencies needed for teaching in tertiary institutions. Though there was a slight difference between their mean responses with male lecturers having higher mean responses but the difference was not statistically significant (mean difference = 0.09).

### Discussion of Findings

The findings revealed that OTM lecturers require internet competencies in the use of internet connectivity such as Wi-Fi to gain access to teaching resources via Internet, use of cloud computing for storing and sharing files, use of file transfer protocol to upload and download files, the use of collaborative sites and software, the use of social media platforms and the ability to organize virtual conferences. Also ability to create hypermedia web pages blogs, micro blogs, use search engines, hypertext markup languages (HTML) and ability to use the browser were revealed to be moderately needed by OTM lecturers for teaching in Polytechnics. The findings further revealed that there was no significant difference between the mean response of male

and female lecturers of OTM on the internet technology competencies needed for teaching in tertiary institutions in Ekiti State. ( $t_{80} = 1.265, p>0.05$ ).

This finding agrees with Asua and Munaza (2015) who opined that the increased use of internet technologies in OTM makes teaching and learning increasingly flexible, multi-tasking and performance based, hence the need for OTM lecturers to acquire relevant and necessary competencies for teaching and learning. This view was also supported by Onajite and Aina (2017) who observed that lecturers' of OTM should be of utmost concern when new subjects or media are introduced into the school system, this is because lecturers' experience and competence will affect their ability to implement these new innovations. Effective teaching of OTM in any learning environment requires the demonstration of various competencies which invariably enables students to learn by improving their knowledge, skills, attitudes and values.

### Research Question 2

What are the lecturer-related strategies for improving the utilization of e-learning platform among office technology and management students in public institutions in Ekiti State.

**Table 2:** Mean ratings and Standard Deviation of lecturer-related strategies for improving the use of e-learning among office technology and management students in public institutions in Ekiti State.

S/N	Items	Overall X	SD	Decision
16	Giving on-line assignments	3.08	0.97	Agreed
17	Using electronic mails in giving assignments	3.24	0.86	Agreed
18	Using e-library facilities	3.03	0.97	Agreed
19	Participating in computer aided instructional Programmes	3.07	0.95	Agreed
20	Regular attendance at ICT seminars	3.07	0.95	Agreed
	Grand Mean	3.16		

Source: Field work, (2019)

The data presented in table 2 indicates that the respondents' mean rating ranges from 3.03 to

3.34 indicating agreed response. This implies that the respondents agreed that the items are

lecturers' related strategies for improving the use of e-learning resources and e-learning platform among business education students in public institutions in Ekiti State. The grand mean of 3.16 further indicates that most of the respondents agreed. This shows that the respondents have homogeneous opinion in their responses, as all the items recorded a mean value of more than 2.50, which was the cutoff point.

### Conclusion

Based on the findings of the study, it was concluded that Internet technologies are useful tools in the process of teaching and learning, and have increasingly improved the quality of students' outcome especially in the secretarial profession. The secretarial profession has come a long way and must strive for excellence and quality in order to constantly remain relevant and functional. Secretarial graduates must match the acquisition of relevant competencies with intellectual and academic prowess to enable them gain and maintain competitive advantage and age. This implies that OTM lecturers must on their part strive to acquire the relevant internet competencies aimed at improving secretarial outcomes. A situation where secretarial students graduate from school without adequate knowledge, skills, attitude and competencies needed for survival in a globalized and technology driven economy leaves much to be decided as the effect of producing half-baked graduate on the economy is better imagined.

### Recommendations

In view of the findings and conclusion of the study, the following recommendations were made:

1. School authorities should ensure that lecturers are given the opportunities for re-training, in-service training and on-the job training where the identified internet competencies can be acquired. OTM lecturers should also make personal commitments aimed at developing themselves in the identified internet technology competencies. This can be achieved through seminars, workshops and conferences that are

organized periodically to keep OTM lecturers abreast with developments in the area of technology.

2. Staff development and training institutions should endeavour to integrate the identified competencies in to the curriculum for staff at all levels to abridge themselves with it. This will help develop in the lecturers the necessary competencies required for effective teaching and teaming of OTM programmes. In the same vein, the curriculum for OTM should be reviewed regularly to incorporate the new technology competencies that keep changing almost on a daily bases. This will go a long way in improving the quality of secretarial outcome produced by the Polytechnics.
3. Management of tertiary institutions should be committed to the provision of adequate new technology equipment and facilities, the relevant infrastructure and the creation of an enabling environment that will guarantee teaching and learning using internet technologies. Lecturers and other stakeholders should ensure that the minimum standards in terms of equipment, infrastructure and personnel for teaching and learning especially in OTM which is a skill course is not compromised.

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