

## The Awareness of Information Technology Facilities among Secretaries in Private and Public Universities in Ogun State, Nigeria

SUBUOLA CATHERINE ABOSEDE  
Olabisi Onabanjo University, Ago-Iwoye, Nigeria.

**Abstract.** Information technology (IT) implies telecommunications involving a combination of computers, networks, satellites, telephones, radio, television and the like. Information technology resources involve both hardware (equipment) and software (programmes). Application of information technology to the secretarial profession involves many disciplines related to computers in handling, processing, management, automation and communication of information to the broader cultural and economic contexts of a society. The study, therefore, investigated the extent to which secretaries in private and public universities are aware of the new information technology facilities. The study adopted survey research design. Four hundred secretaries (male — 200; female - 200) were randomly drawn from Babcock University, Ilishan, Covenant University, Ota and Olabisi Onabanjo University, Ago-Iwoye. The data, which were analyzed by the researcher using mean, standard deviation and t-test, showed a significant difference in the awareness level of secretaries from both private and public universities. It was recommended that basic telecommunication facilities should be made available to the secretaries and even other clerical staff to bring greater mass of practitioners into the stream of information technology activities both by the public and private sectors.

**Keywords:** Information Technology, IT Facilities, Internet, Secretaries, Universities.

### 1. Introduction

The world is now, more than ever before becoming a global village as a result of the information technology (IT) revolution in the last two decades. This has led to a proliferation of personal computers (PCs), servers, modems and other associated electronic data terminal equipment. The use of high bandwidth fibre optic cabling to provide integrated services coupled with modems and switching devices has improved speed of connection via the Internet and the growth of Internet Service Providers (ISPs) has increased accessibility. Indeed, it is estimated that there will be an explosive increase in demand to transmit data over telecommunication networks during this decade and the next.

Akudolu (2002) defined *information technology* as electronic systems that are used for broadcasting, telecommunication and all forms of computer mediated communications. Information Technology (IT) has been revolutionizing the ways in which people in various countries of the world live and conduct their work. This new technology has crossed many professions, fields and businesses. The rapid growth and expansion of Information Technology (IT), telecommunication networks and interconnectivity encouraged the introduction of electronic services into various sectors such as administration, governance, education, business, agriculture, secretarial

administration and global operations. The developed countries consider information technology as much vaunted technology for increased socio-economic development and depend on the "knowledge economy" for wealth creation. Sofield (2000), however, pointed out that many developing countries have not taken up information technology to the fullest possible extent as a means of reaching increased socio-economic development by entering the knowledge economy.

In contrast to the developed countries that have been steadily capitalizing on the rapid pace of IT, a large number of developing countries, particularly low-income countries have failed in the adaptation of these technologies thus contributing to the "digital divide" between the developed and developing countries (Human Development Report, 2001). Many of the developing countries are grappling with the spectrum reform or revolution in a climate of rapid technological change, convergence and relentlessly growing demands for these information technology facilities. In spite of this, the Nigeria Communication Commission described the country as the biggest internet market and the largest internet population in Africa (Folorunso & Adebayo, 2015). In Nigeria, there are millions of internet users, accessing internet services through technologies like mobile phone, computers and so on.

When organizations engage their secretaries in any of the technology-enriched services, they are assured of a thorough transfer of knowledge which is designed to enable them thrive in today's speedily evolving information technology based global economy. Onyekonwe (2005) asserted that information technology revolution has not only helped the secretarial profession, but also widened the scope and practices of the secretarial practice in terms of speed, quality and accuracy in job performance. He further pointed out that this revolution has no doubt, placed the profession and the secretarial practitioners under severe pressure. Before the invention of the modern information technology facilities, business offices faced a paperwork crisis, which was as a result of manually operated machines and equipment

used by the secretaries. But today, with the invention of new technologies, secretaries are able to perform vital "information management" functions in the modern office. To this end, efficiency of professional secretaries is a vital factor in the well-being of an organization as it can have a marked effect on productivity. Traummuller and Lenk (1996) pointed out that it is believed that the application of information technology (IT) would lead to innovative administrative systems which can enhance policy formulation, promote participation, improve service quality, make planning more effective, empower citizens, and improve transparency and accountability of government affairs.

The growth and development of information technologies (ITs) has led to their wide diffusion and application, thus increasing their economic and social impact. Some of these new information technologies, according to Akudolu (2002), include the computer, on-line self-learning packages, interactive CDs, chips, satellites, radio, optical fibre technologies, telepresence systems. Nwosu (2002) and Onyekonwe (2005), identified internet, voice-messaging systems; very small aperture terminal (VSAT), the electronic organizers, teleconferencing, the electronic mail (e-mail), bulletin board system, interactive radio (RIP), and video text as new information technology facilities. Ezechukwu (2002) identified information technologies to include: the computer, word-processor, mobile and cellular telephone, the internet, the electronic mail, teleconferencing, voice managing system and facsimile. In the same vein, Sannie (2000) listed new technologies that can be applied both in the office and the field of communication as teleprinter, e-mail, multi-link, internet website, intercellular/car phones, facsimile (fax), telex, spread-sheet and networking electronic typewriter.

The most prominent form of information technology (IT) today is the internet, which can be said to have originated as early as 1945 with Vannevar Bush's academic paper on the Memex; a conceptual device or machine which would be able to access the collective technical

knowledge of academia for anyone in need (James, Natalie & Des, 2012). Olowu and Seri (2012) defined internet as a worldwide network of computers that allows individual access to sending, receiving and storing electronic information over public network. Internet could be seen as a product of technology which comes as a result of scientific inventions and connecting network system that transmits data via various types of media. Internet is defined according to Folorunso (2017) as a network of global exchanges which include private, public, business, academic and government networks connected by guided, wireless and fiber-optic technologies. Internet is an international cooperative computer network of networks which links many types of users all over the globe such as government, schools, libraries, corporations, industries, hospitals, individuals and others (Amosa, 2000 as cited in Adeniba, 2003). Odunewu (2004) identified a variety of services offered by internet to include creating, browsing, accessing, searching, viewing and communicating information on a diverse set of topics ranging from results of scientific experiments to discussion of recreational activities. Sowobi (1997) on the other hand, reported that internet is the world's most efficient means of communication. He reported further that the internet is cheap and freely available to all those who wish to make advantage of it. As also reported by Folorunso (2017), the use of internet was expanding for many purposes in Nigeria in particular as e-government, e-payment, e-procurement, e-commerce, e-registration, e-learning and e-examination projects.

The influence of the internet is filtered through the structures and processes of the society (Oluwatoyin, 2011). Bonaface and Elijah (2014) opined that internet is perhaps one of the greatest inventions of our time. By implication, it has a profound effect on almost every aspect of our lives, secretaries in Universities inclusive. Secretaries no longer "simply" type correspondence for "the boss". Now, they often write that correspondence as well as plan meetings, organize data using spread sheet and data base management software. With internet, they interact with clients and vendors, and the

general public, handle other modern office facilities, supervise the office and a host of others. Secretaries should therefore, possess the necessary skills required to use the resources for her effectiveness in the information dissemination, records management and general work flow (Chukwuemezie, 2002; Odunewu, 2004).

However, information technology has not made much impact on changing the working practices and the culture of the university system. To date, both manual and new technologies co-exist. Most secretaries are not aware of some of these new information technology facilities and those that are aware still prefer to work with manual systems because they believe that it is very easy to work with and understand than the new information technology facilities because they can see how transactions are related and how they function, but with computers this cannot be ascertained. Some of these secretaries are not literate in information technology. The main purpose of this study is to find out the extent to which secretaries are aware of information technology facilities in both private and public universities in Ogun State, Nigeria.

One central question forms the specific problem of this study. To what extent would secretaries in private universities' awareness of information technology facilities differ from secretaries in government-owned/public universities? The only hypothesis formulated and tested for the purpose of the study was: There is no significant difference in the awareness of information technology facilities between secretaries in private and public universities.

## 5. Methodology

This study employed the survey research design in which questionnaire was employed in collecting data from the participants. The population of this study was all secretaries in both private and public universities in Ogun State. Participants included four hundred (400) secretaries randomly selected from two (2) private universities, Babcock University, Ilishan and Covenant University, Ota and one public, Olabisi Onabanjo University, Ago-Iwoye. There were 200 males and 200 females involved in the

study. A twenty-five item questionnaire labelled Secretaries' Awareness of Information Technology Facilities was developed to collect data for the study. The response format was a 4 point Likert type rating scale, ranging from 1= Not Aware, 2 = Barely Aware, 3 = Partially Aware, to 4 = Fully Aware was used. The instrument was tried out on a different sample in a pilot study to determine its reliability and validity. A test-retest reliability index of 0.75 was derived. The data generated in the study were subjected to descriptive statistical analysis; Mean, Standard Deviation and inferential statistical tool analysis i.e. t-test were used in answering the research question and testing the hypothesis generated at 0.05 alpha level. A mean

score of >2.50 is the acceptance point for awareness, while <2.50 is regarded as unawareness.

**6. Results**

This section of the study focused on presentation of results on the basis of the research question and hypothesis generated for the study.

**Research Question 1:** To what extent would secretaries in private universities awareness of information technology facilities differ from their counterparts in public/government-owned universities?

**Table I: Secretaries' Awareness of Modern Information Technology Facilities**

S/N	Information Technology Facilities	Secretaries in Private University		Secretaries in Public University		MD	t-Cal
		$\bar{x}$	SD	$\bar{x}$	SD		
1.	Online Conferencing	1.94	0.75	1.85	0.68	0.09	1.29
2.	Office Workstation	1.96	0.92	1.92	0.86	0.04	0.44
3.	Internet Browsing	3.60	1.02	2.95	0.98	0.65	6.50
4.	Website (World Wide Web) www	3.86	0.97	3.18	0.89	0.68	7.56
5.	Internet Surfing Net	3.82	0.82	3.40	0.88	0.42	4.67
6.	Electronic Mailing (E-mail)	3.28	0.61	2.80	0.75	0.48	6.86
7.	Downloading and Uploading on Internet	3.57	1.13	2.98	1.07	0.59	5.36
8.	On-line Workstation	2.03	0.92	2.00	0.88	0.03	0.03
9.	On-line Marketing	2.34	0.87	2.25	0.92	0.09	1.00
10.	Computer Hardware	3.88	0.92	3.70	0.97	0.18	2.00
11.	Computer Software	3.76	0.98	3.70	0.99	0.06	0.60
12.	Telex and Teleprinter	2.78	0.91	2.24	1.03	0.54	1.80
13.	Facsimile Transmission (Fax)	2.85	0.63	1.38	0.99	1.47	1.84
14.	Scanner and Scanning	2.55	0.68	1.95	1.01	0.60	6.67
15.	Laser-Jet Printer	3.67	0.92	3.23	0.97	0.44	4.89
16.	Telecommunicating	3.30	0.83	2.35	1.11	0.95	9.50
17.	Telephone Answering Machine	3.39	0.96	3.45	0.97	-0.06	0.06
18.	Laminator	3.85	0.88	4.00	0.95	-0.15	1.67
19.	Interactive CDs	2.15	1.13	1.99	0.98	0.16	1.45
20.	Chips	2.17	0.91	2.01	0.88	0.16	1.78
21.	Satellites	2.03	0.92	1.97	0.84	0.07	1.17
22.	Mobile/Cellular Telephone System	4.00	0.57	3.98	0.67	0.02	0.33
23.	Compact Disk-Read Only Memory (CD-ROM)	2.90	0.93	2.40	1.01	0.50	5.00
24.	Audio-Video Conferencing	3.80	1.13	3.68	0.98	0.12	1.09
25.	Stenographic Machine	3.08	0.99	3.00	0.78	0.08	0.89

The analysis of Table 1 revealed that a greater number of the secretaries are not aware of some vital information facilities the responses to the questionnaire items, which indicated a high degree of unawareness among secretaries in public university than their counterparts in the private universities. The unawareness level of secretaries in public university was seen in 12 items while those of private universities were 7 items. This is because the mean scores for these facilities were below the cut-off point of 2.50 as shown in Table 1. It was revealed that secretaries from both private and public universities rated 7 items similarly as unaware such as; On-line Conferencing, Office Workstation, On-line Workstation, On-line Marketing, Interactive CDs, Chips and Satellites.

However, from their mean scores, secretaries in private and public universities indicated high level of awareness of 13 items such as; Internet browsing, Website, Internet Surfing Net, E-Mail, Laminator, Mobile/Cellular telephone among others. When the mean scores of secretaries in private universities as regards their awareness of information technology (IT) facilities such as; items; 3,4,5,6,7,10,13,14,15,16 & 23 were tested with the mean scores of secretaries in public university; these yielded t-values as shown in Table 1, which are significant at a level of  $P < .05$ .

### Hypothesis Testing

The hypothesis stated that there is no significant difference in the awareness of information technology facilities between secretaries in private and public universities.

**Table 2: Independent t-test of Difference in the Awareness of Information Technology between Secretaries in Private and Public Universities.**

Group	N	$\bar{x}$	SD	MD	Df	t.Cal	t.Cri	P
Secretaries in Private University	200	77.10	2.31	8.29	398	2.67	1.960	< 0.05
Secretaries in Public University	200	68.81	3.74					

The results in Table 2 indicated that there is a significant difference between secretaries in private and those in the public universities as regards their awareness of information technology facilities. The calculated t-value of 2.67 was found to be higher than the critical table value of 1.960 at 0.05 level of significance. The null hypothesis was therefore rejected by the Findings of this study. The finding implied that secretaries in private universities are more aware of the information technology facilities than their colleagues in the public university.

### 7. Discussion

Table I revealed that secretaries in private universities are more aware of some of these information technology facilities than their counterparts in public university. Secretaries in private universities are aware of 18 items while those in public are aware of 13 items. Such as Internet, Website (www), E-Mail, Computer Hardware and Software, Laser Jet Printer, Telecommunicating, Mobile/Cellular Telephone System, Stenographic Machine, and Audio-Video Conference.

The acceptable mean score for awareness of each information technology facilities listed was 2.50 and above. For instance, secretaries' awareness of computer service was rated as high as 3.88 mean score. This, according to Oketunji (2003), means that there should be some internet

guides and tutorials in using engines effectively and equally defining search engines to meet specific needs. Universities therefore, should train their secretaries to be computer/internet literate because it provides golden opportunity for provision of value added services to the secretarial professions and the university administration at large. This corroborates what Agomuo and Isu (2002) found in their study, that a high percentage of secretaries are not computer literate. As Johnson, Johnson and Stanne (1985) put it, effective information sharing is essential in making a solid connection between tertiary institutions and the rest of the world. The internet has been highly rated by secretaries in both private and public universities in terms of their awareness of information technology facilities. Internet enables secretaries exchange news and views on a variety of secretarial administration. This is in line with Ntudukem (2000) who asserted that internet assists secretaries to access or exchange information with other computer users around the globe.

Also Kiangi and Tjipangandjara (1996), Traunmuller and Lenk (1996), Bhatnagar (2000) asserted that the development of these information systems such as document management, electronic data, interchange, group ware for computed supported group work and internet and intranets can lead to innovative administrative information systems, improved

service quality, more effective planning and thereby becoming a means of empowering citizens.

The study also found that there was a significant difference in the awareness of information technology (IT) facilities between secretaries in private and public universities. The finding implies that information technology facilities' awareness are more in private universities, while they are less in the public universities. The finding supports the report of Samaranayaka (1999) who found out that service oriented organizations such as, banks and most of the private sector institutions introduced information technology for commercial activities. This finding also disagrees with Onyekonwe (2005) who reported that there was no significant difference between the mean responses of secretaries in the private establishments and mean response of their counterparts in the civil service as regards their awareness of information technology facilities.

However, the awareness of secretaries in public universities as regards information technology facilities was negative. There is the belief among them that information technology learning is an elite activity for the rich and those who could afford it. The acceptance of application of information technology at work by the secretaries is a highly challenging because of the long established socio-cultural and negative attitudes of employees towards information technology at work. This is mainly due to the lack of awareness of information technology facilities, illiteracy in information technology, long established bureaucratic culture and lack of commitment to work.

In addition, lack of awareness of information technology facilities by secretaries in public university is constrained by the unavailability of physical infrastructure facilities such as computers, telephone, internet facilities, maintenance facilities, and unrealistic rules, procedures and at times by outdated administrative and financial regulations that best suit a 'closet but not an 'open' economy.

## 8. Recommendations

In the light of the findings of this study, it would be recommended that:

- (i) Basic telecommunication facilities should be made available to the secretaries and even other clerical staff to bring greater mass of practitioners into the stream of information technology activities both by the public and private sectors.
- (ii) Appropriate information technology facilities should be provided immediately both in public and private sectors to support the growing demand of the information technology sector. As telecommunication infrastructure is an integral part of information technology so the telecommunication sector should be liberalized as early as possible.
- (iii) The government can facilitate the development of information technology facilities at the least possible cost with little or no customs duty during construction of the infrastructure at the universities and the society at large.
- (iv) Developing programmes to train quality information technology professionals and skilled personnel to ensure success in the global software and information technology-enabled services.
- (v) Appointments into positions such as clerical officers, typists, secretaries, administrative officers and technicians should be based on a criterion that prospective candidates must be computer literate.
- (vi) Nigeria is far behind in the application of information technology most especially in the public or government owned higher education institutions. To date, the development of information technology applications at the university level include few mechanisms to ensure that secretaries are able to receive the

ensuing benefits. Information technology facilities can be developed and implemented within the universities to improve the knowledge and service quality and create facilities by providing information about the organizations, education and training.

## References

- Adeniba, S. B. (2003). *Use of the internet for academic research*. Paper presented at the First National Conference of the School of Science Education, Federal College of Education (Technical), Akoka, 17,30-34
- Agomuo, E. E., & Isu, C. (2002). Secretarial job tasks required in modern business offices in Abia State: Implications for improved secretarial education. *Business Education Journal*, 111(5), 194-202.
- Akudolu, I. R. (2002). Information and Communication Technology (ICT) Central Education: A Necessity for National Development. *Nigerian Journal of Computer Literacy*, 3(1), 10-18.
- Amosa, B. M. G. (2000). Issues of internet connectivity and the academic communities in Nigeria. *COAN Conference Series 11*, 18-24.
- Bhatnagar, S. (2000). Social implication of information and communication technology in developing countries: Lessons from Asian success stories. *The Electronic Journal on Information Systems in Developing Countries* (Online). Available www: <http://www.unimas.my/fit/roger/EJISDC/EJISDC.htm>, 1, 1-9.
- Bonaface, K., & Elijah, P. (2014). Mobile learning: A bridging technology for varying learner entry behaviour. *Journal of Education and Practice*, 5(31).
- Chukwuemezie, F. U. (2002). The internet competencies required of secretaries in information technology environment. *Business Education Journal*, 111(5), 24-37.
- Ezechukwu, C. O. (2000). The professional secretary in the modern office and information technology. *National Association of Professional Secretarial Staff of Nigeria*, 6-66.
- Folorunso, I. O., & Adebayo, T. O. (2015). Sources of awareness, motivations and usage pattern of social network sites among OTM students of the Federal Polytechnic, Ede. *International Journal of Sciences, Engineering and Environmental Technology*. [www.repcomseet.org](http://www.repcomseet.org). retrieved on September, 2016.
- Folorunso, I. O. (2017). *Differential effectiveness of peer-tutoring and internet based teaching methods on polytechnic students' achievements in ICT office applications in South-west, Nigeria*. Ph.d Post-field Report submitted to the Department of Educational Management and Business Studies, Faculty of Education, to the Postgraduate School, Olabisi Onabanjo University, Ago-Iwoye, Ogun State.
- Human Development Report (2001). Technology's role in reducing poverty in developing countries (On-line). Available [www: http://www.colombopage.com](http://www.colombopage.com)
- James, C., Natalie, F., & Des, F. (2012). *Misunderstanding the internet*. Routledge 2 Park Square, Milton Park, Abingdon, Oxon OX14 4R, 1(1), 66.
- Johnson, D. W., Johnson, R. T., & Stanne, M. B. (1985). Effects of cooperative and individualistic goal structure on computer-assisted instruction. *Journal of Educational Psychology*, 77(6), 666-668.
- Kiangi, G. E., & Tjipangandjara (1996). Opportunities for information technology in enhancing socio-economic development of a developing country. In M. Odedrastraub (Ed.), *Computerization and controversy: Value conflicts and social choices*, (2<sup>nd</sup> Ed.) San Diego, C. A.: Academic Press, 109-132.
- Ntudikem, E. (2000). Technological advancements in secretarial profession:

- Challenges and implications for secretaries and business educators. *Business Educational Journal*, 111(2), 31-39.
- Nwosu, B. O. (2002). Word processing and electronic offices in Abia and Imo states. *Business Education Journal*, 111(5), 172-181.
- Odunewu, A. O. (2004). Availability and use of internet services in Ago-Iwoye, Nigeria. *Journal of Library and Information Science (JOLIS)*, 1(1&2), 102-112.
- Oketunji, I. (2003). Professional challenges in the digital age. *Lagos Journal of Library and Information Services*, 1(2), 101-103.
- Olowu, A., & Seri, F. (2012). A study of social network addition among youths in Nigeria. *Journal of Social Science and Policy Review*, 4(1), 98-112.
- Oluwatoyin, A. (2011). ICT, CGPA: Consequences of social networks in an internet driven learning society. *International Journal of Computer Trends and Technology*, 2(2).
- Onyekonwe, P. I. (2005). Evaluating the professional secretaries' awareness of information technology facilities in Delta state. *Nigerian Journal of Research and Production*, 6(2), 169-176.
- Samaranayaka, V. K. (1988). *Implementing new technologies: Issues and strategies*. Paper presented at the Castme Pacific Regional Workshop, 1-15.
- Sannie, M. B. A. (2000). *Business communication and use of english (with practical persuasive communication skills)*. Lagos: Management and Business.
- Sofield, T. H. B. (2000). Outside the net: Kiribati and Knowledge Economy. In F. Sudweeks & C. Ess (Eds.), *Proceedings of the second international conference on cultural attitudes towards technology and communication*, (3-26), Perth, Australia.
- Sowobi, B. A. (1997). Nigeria and the internet. *Microbyte*, 1(3), 22-25.
- Traummuller, R., & Lenk, K. (1996). *New public management and enabling technologies advanced IT tools*. Edward, London: Chapman and Hall, 11-18.