Influence of Information and Communication Technology on Modern-day Secretaries in Tertiary Institutions

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Abstract: This study investigated the influence of Information and Communication Technology (ICT) on modern-day secretaries at Ekiti State University (Ado-Ekiti) and College of Education (Ikere-Ekiti). It was observed that most secretaries have been displaced from their jobs due to the advent of Technology. Some did not wholeheartedly welcome the new emergent technology and saw it as a disruption. Therefore, this study seeks to bring to the fore the importance of information communication technology in advancing the work of secretaries. A descriptive survey research method was used in this study. The population of the study consisted of 70 secretaries from the two institutions. A self-designed questionnaire, which was validated with the test-retest method, was used as the study instrument with an overall reliability test of Cronbach's alpha of 0.95. The collected data were analyzed using descriptive and inferential statistics. The results of the study showed that ICTs had a significant influence on modern-day secretaries in the two institutions, as they were able to utilize various technologies such as emails, data storage systems, and social media in their daily work activities. It was recommended that secretaries in the two institutions should be provided with adequate training to enable them to take full advantage of the benefits of ICTs. Furthermore, it was recommended that ICTs should be used more effectively and efficiently to improve the quality of services offered by secretaries.

Keywords: ICT, influence, secretary, tertiary institution, executive work.

1.   INTRODUCTION

A modern-day secretary as a computer user in the 21st century, being able to solve minor problems is not intruding into another man's field, but rather to boost the accomplishment of office tasks, not to panic whenever the computer indicates a problem, the message that is displayed might be lead to solving the problem without inviting an engineer. Afida (2004) thought, that a personal secretary is intelligent and competent, accepts responsibilities, in addition to his/her skills, education, and experience, and shows a real and expressed interest in his/her office. Ejaka (2006), viewed a personal secretary as one who acts as the confidential assistant of another or attends to correspondence and records in the office, or who conducts the communication and private aspects of executive work.

However, some secretaries in tertiary institutions still face some challenges in their offices. One of the challenges is running around to distribute agenda and notice of meeting whenever there is a meeting thereby wasting time and energy even though information technology has provided the means of making the work of secretaries stress-free in the area of sending the agenda and notice of meeting through e-mails, WhatsApp, Facebook messenger and so on to the concerned members. This would save a lot of energy, time, and resources. In the same vein, the challenge of looking for members and venues for meetings usually encountered by secretaries whenever there is a meeting could be removed through the process of teleconferencing or videoconferencing which the information and communication technology has provided if they are given the required training. In some departments in the College of Education, Ikere-Ekiti for example, the Exams and Records department, and manual typewriters are still in

use. The secretaries in the department complain that they usually have problems using a computer to type on institution's headed papers and students' forms especially when typing students' matric numbers, departments, levels, semesters, and so on; hence the continuous use of manual typewriters which they believe to be the only appropriate equipment they can use whenever they are using headed paper. Lack of adequate knowledge and technical skills of modern technologies has prevented the secretaries from using some computer software like CorelDraw which could have assisted them to even print the headed papers themselves without stress.

If the level of awareness of information and communication technology among secretaries especially the secretaries in the Bursary department is high enough, they would be able to do simple calculations using Microsoft Excel on the computer. This makes their work faster and accurate thereby eliminating the stress of typing and at the same time punching the calculators to do the arithmetic in their work. In some organizations, pay slips or pay advice is sent to individual workers through the organization's website thereby saving the organization some resources spent on the printing of the payslip to individuals. Information and Communication Technology (ICT) promotes efficiency in all areas of human activities. Individuals, groups, and governments all over the world are taking advantage of this opportunity to transform the activities of various sectors through the development of new skills. Information and Communication Technology has been identified as a major factor for effective service delivery in tertiary institutions. Information and Communication Technology (ICT) has changed the face of offices and consequently made business environments wear a new look. This is particularly noticeable in the area of office administration and management (Agomuo, 2005). The author stated that information and communication gadgets, equipment, and facilities improve how the message is preserved, recalled, shared, and relayed for information and communication purposes.

Nigeria as an emerging economy needs modern secretaries if it is to achieve its economic goal. The importance of an office in the development of an economy cannot be overstressed. At the centre of the new trends in the office is the office information systems brought about by information and communication technology. Secretaries in medieval organizations dealt with papers, worked with manual machines, relied on postal services for external communications, and kept office records in files in cabinets (Ntukidem, 2000). The story has changed, the use of typewriters is gradually faced out and modern-day secretaries are found using and operating computers, the idea of the personal secretaries having a better grasp of the machine secretaries newly use is a step in the right direction. In line with this, Ntukidem (2000) posited that modern secretaries do not deal with papers or carry out their duties manually these days

because virtually all office tasks are handled with electronic and telecommunication gadgets. In Nigeria, the National Board for Technical Education changed the Secretarial Studies Programme to the Office Technology and Management Programme in an attempt to flow with the new technology (Chigbuson & Nimfel 2009).

The technology and its skills applied in office task has not only changed but has also significantly enlarged the secretarial profession. Technology has brought about development in communication systems worldwide, and as a direct consequence secretarial profession is becoming more multi-dimensional and sophisticated. The office environment has witnessed unprecedented changes in recent years due to technological changes in the method of processing and communicating information (Chigbuson, 2009). The growth in technology has made computer and office technological skills and competence a general requirement not for only sciences, but all fields of life; this is because the computer has been reduced to virtually anything thinkable. According to Agomu (2001), the relevance of the office information manager in today's office is increasingly threatened by the influx of technologies and the role of this caliber of staff (secretaries) is being challenged by the wonders of technology. What is most important to note is that secretaries no doubt, will continuously come in contact with tools of technology in their offices, since technology is changing. There is therefore need to acquire skills that will enable the secretaries to cope with these developments (Chigbuson, 2009).

Ohakwe (2001) argued that secretaries who are not well equipped in terms of information and communication technology (ICT) skills competencies required for today and tomorrow's office are sure to be embarrassed as their inadequate skills will render them redundant or even thrown out of the job. Advertised jobs today come with a clause "applicant must be computer literate". Okoli (2008) found that secretaries encounter problems with the use of these modern office machines. The problems include a lack of expertise in the use of modern office machines, monotony, and fear from secretaries that the new office technology might lead to unemployment, loss of jobs, redundancy at lower cadres, or even being replaced with computer specialists. This then suggests that secretaries need re-training programmes to improve the technical skills needed to perform their job well. According to John (2009), troubleshooting skills are among the most used technological skills. Austin (1987) stressed that at the end of the 19th century and with the invention of the typewriter, the duties of the scribes became more pronounced, and more women were employed to produce handwritten materials on typewriters for record keeping and readable dissemination of information. The nature of the secretarial profession and its relationship to other organizational and managerial functions are rather difficult to define. However, the traditional conception of the secretary and his/her functions like the ancient

executive with whom he/she has always been identified has been narrow-minded, rigid, unprofessional, academically inadequate, unorganized, slow, incompetent, and old-fashioned worker (Austin, 1987). It is on this background that this study was conducted to determine the influence of information and communication technology on modern-day secretaries in tertiary institutions in Ekiti State.

1.1 Statement of the Problem

The advent of modern technology in the field of secretarial vocation has enlarged the scope of secretaries' functions beyond just handling correspondence and also seems to have thrown some secretaries out of their jobs by replacing them with computer specialists, and also has kept some in the lower cadre as a result of the inability to keep in pace with the demand of automated offices. The office secretary appears to commonly lack awareness of information and communication technology while some find it difficult to operate the new machine that modern technology has brought. These difficulties include the inability of the printer, mouse, and keyboard to respond and not being able to fix it within time.

Secretaries who appear not well equipped in terms of information and communication technology (ICT) skills and competences required for today's and tomorrow's office are sure to be embarrassed as their inadequate skills will render them redundant or even throw them out of the job. Secretaries seem to encounter problems in the use of the modern machine and such problems include, lack of expertise in the use of modern office machines, fear from the secretaries that the new office technology might lead to unemployment, loss of jobs, redundant at lower cadre and so on which suggest that secretaries need re-training programme and awareness about the future of their job and what it takes to keep them competing and useful in the 21st-century office.

Some of the challenges facing secretaries in tertiary institutions in Ekiti State include running around to distribute agenda and notice of meetings whenever there is a meeting thereby wasting time and energy even though information technology has provided the means of making the work of secretaries stress-free in the area of sending the agenda and notice of meeting through e-mails, WhatsApp, Facebook messenger and so on to the concerned members. This would save a lot of energy, time, and resources.

In the same vein, the challenge of looking for members and venues for meetings usually encountered by secretaries whenever there is a meeting could be removed through the process of teleconferencing or videoconferencing which the information and communication technology has provided if they are given required training.

In addition, the problems of modern-day secretary's office automation and challenges with the use of information and communication technology in tertiary institutions in Ekiti State necessitated this study. The study seeks to:

1. determine the level of awareness of information and communication technology by secretaries in tertiary institutions in Ekiti State;
2. examine the challenges in the adoption of Information and Communication Technology by secretaries.
3. determine the influence of the use of information and communication technology on modern-day secretaries;
4. determine the relationship between the use of information and communication technology and the secretary's productivity.

2. LITERATURE REVIEW

2.1 Concept of Information and Communication Technology (ICT)

Information and Communication Technology (ICT) stand on two pillars which are hardware and software and the term hardware is applied to any of the physical equipment in the system usually containing electronic components and performing some kind of functions in information processing (Butler 2012). He further explained that hardware includes not only the tangible parts of the computer and devices such as screens and printers but also all elements used to tie information systems together. Software, on the other hand, is the set of instructions that guides a computer in performing its duties.

In supporting the above view, Hilbert (2011) defined information and communication technology as revolves around computerized systems and communication technology. The secretary makes good use of computer and communication systems such as the telephone, internet, and fax-mail that improve working skills and hence, increase productivity. Computers and information and communication technology help secretaries write, edit, and send memos, letters, and reports within and outside the organization as fast as possible (Mumini & Hawa 2014).

Information and communication technology is a tool or facility that provides what the environment needs, including service and physical infrastructure, for the generation, transmission, storage processing, and dissemination of information in form, text, voice, data, and graphics (Noor-Ui-Amin 2013). From his point of view, information and communication technology is a tool for computer communication facilities. Information and communication technology has a very important role and can be used wherever and whenever and the output produced can reach its users at a low cost and in a short time across all information and communication technology users (Ghaznavi et al. 2011).

Information and Communication Technology (ICT) in the 21st century has revolutionized all professions worldwide including the secretarial practice. Agbatogu et al (2011) said that technology has been a significant tool in almost all human andeavours. The introduction of sophisticated office technology equipment like computers, word processors, and other information resources coupled with new management techniques have completely changed old work habits in the office and triggered new business orientation. These changes are mostly driven by information and communication technology (ICT).

Similarly, Adedoyin (2010), and Appah and Emeh (2012) argued that information and communication technology have affected every profession in the last 20 years. Technology is providing the tools that are revolutionizing the role of secretarial professionals from that of information recorders to business strategists making them much more critical to the success of an enterprise (Jaiyeola 2007). Information communication technology is also seen as a networked technology comprising the use of information processing and sharing facilities or equipment, relevant to meeting societal demands.

Nemine and Torunarigha (2010) also stressed that technology is the systematic application of scientific knowledge to achieve practical results. It entails a combination of different approaches to solve a problem which applies to the secretaries in the office. Therefore, we live in a competitive environment where things are changing fast and for the better technologically, and due to the growing complexity of modern-day management, the office is also changing. Secretarial functions such as typing, and mailing a letter that usually takes minutes or hours have to be carried out in seconds with high speed, accuracy, and perfection.

Information and communication technology is the combination of computing, telecommunication, and video techniques to acquire, process, store, and disseminate vocal, pictorial, textual, and numerical information. Information and communication technology also enables the secretaries to coordinate the logistics of face-to-face meetings (Beqri 2014).

Information and Communication Technology is seen as a way to promote educational change, improve the skills of secretaries, and prepare them for the global economy and information society. Information and Communication Technology is used to improve the delivery of and access to effective and efficient management of the office and the organization as a whole. Information and Communication Technology focuses on secretaries, it tends to improve the understanding of the secretarial practice and functions and increase the quality of secretaries' work attitude thereby increasing the impact of secretaries on the management of the office.

The secretary by her profession works in different business organizations that have worldwide connections in the form of producing and channeling information that leads to improvement in the organization through written communication and electronic mail with the help of information communication technology. Secretaries do not know what jobs they will encounter at their desks, therefore, they are expected to be computer literate by having good typing skills, having a good knowledge of Microsoft Word and other software.

Furthermore, Osinem and Nwoji (2010) emphasized that information and communication technology has substantially changed the world by creating new patterns of social and economic interaction and transforming lifestyles, work, and communication. From the day the computer moved from the mainframe to the mainstream, it had been assumed that the introduction of Information and Communication Technology (ICT) would make office work more interesting and more productive. Typewriters are disappearing in favour of word processors, and spreadsheets are replacing calculators. The way organizations operate has changed, surely for the better (Ayandele & Adeoye, 2010).

In the view of O'Brien in Ayandele & Adeoye (2010), information and communication technology is an organized combination of people, hardware, software, communications network, and data resources that collect, transform, and disseminate information in an organization. Global changes also put pressure on all groups to consistently acquire and apply new skills for information and communication technology.

2.2 Level of Awareness of Information and Communication Technology By Secretaries

Adequate understanding and knowledge of information and communication technology according to Rabah (2015) is necessary in our modern society. Information and communication technology has become universal with current and future social and organizational development. The role of technology in national development and secretarial jobs is undeniably significant. However, the office secretary appears to commonly lack awareness of information and communication technology; while some find it difficult to operate the new machine the modern technology has brought others find it difficult to fix minor problems like the inability of the printer, mouse, and keyboard to respond within time.

Meanwhile, some secretaries are aware of the advantages of information and communication technology because it has brought positive change to their work as noted by Malavia and Gogia (2010) who

believed that the development of office technologies which resulted in the creation and use of computers and software programmes has simplified the work of the secretary. The output of the present-day secretary is quite higher if compared with the old-time secretary. Information and communication technology has integrated the world into a global village, thereby making the processing, production, marketing, and consumption of knowledge, skills, goods, and services very easy without distance barriers.

Information and communication technology has changed the equipment and work groups. Of course, no secretary today would like to work in an office where information processing and other secretarial activities are done manually. This is a result of the level of awareness of information and communication technology among the secretaries. In other words, the manual office is gradually giving way to the ICT-based office. This transformation has resulted in the development of automated systems that rely on electronic collaboration and communication networks, text processing, image processing, and other information and communication technologies.

The awareness of information and communication technologies has significantly changed the way companies do business. Before the use of personal computers in offices, secretaries or administrative assistants typed letters, created reports, and organized information in files. Now most office workers have personal computers and take responsibility for these functions, as well as many more. Employees keep their letters and e-mails, create spreadsheets, graphs, and multimedia presentations, and files on computer networks. Information and Communication Technology (ICT) allows one to easily create, collect, store, and use knowledge and information; it enables easy connection with people and resources all over the world thereby helping people and organizations to collaborate in the creation of knowledge and to also benefit from knowledge products (Law & Quale, 2003). This is done through the internet which is brought about by the knowledge of information and communication technology.

2.3   Concept of Secretary

The word 'secretary' was derived from the Latin word 'secretarius' meaning 'keeper of secret'. The earliest records of ancient civilization indicate that scribes were used by the Assyrians in the 18th century to compile materials for public reading. These scribes later became employees in government circles and rose to a professional status. Towards the end of the 19th century and with the invention of the typewriter, the duties of the scribes became more pronounced, and more women were employed to produce handwritten materials on typewriters for record keeping and readable dissemination of information.

Various studies have given their definitions of the term secretary. It is therefore appropriate to provide an understanding as to who is truly the secretary. Adebayo and Akinyele (2012) quoting the National Secretaries Association (International) described a secretary as an executive assistant who has mastery of office skills, demonstrates the ability to assume responsibility without direct supervision, exercises initiative and judgment, and makes decisions within the scope of assigned authority. Besides, the secretary is an indispensable information and support staff in an organization (Onamade et al. 2012) who plays a vital role in the effective operation of the organization and is most occupied with the increasingly complex information flow in the office.

According to Robert et al (2011), the secretary is an employee who coordinates office activities and performs secretarial assignments for professional or management staff. A good secretary must be a wizard at shorthand. She is also a typist because she does the typing chores for her executive; she assumes responsibility without direct supervision, exercises judgment, and decides within the scope of her authority. The nature of the secretarial profession and its relationship to other organizational and managerial functions are rather difficult to define. However, Onifade (2010) has defined a secretary as an employee who possesses personal and business attributes. The secretary guards his/her professional ethics of confidentiality, good appearance, and absolute loyalty. The work of the secretary is characterized by the handling and processing of information.

The secretary, due to the nature of her work has remained to be a key player in the success of achieving organizational goals and objectives. Many organizations rely on the secretary's ability for the achievement of their organizational goals and objectives (Nwaokwa & Okoli 2012). She possesses a mastery of office skills and the ability to assume responsibility without direct supervision. She also displays initiative, exercises judgment, and makes decisions within the scope of her authority.

Similarly, Etonyeaku (2010) opined that secretaries in the organizations of the yesteryears dealt with papers, worked with manual machines, relied on postal services for external communications, and kept the office records in files in cabinets, but today, it is a different story, secretaries no long deal with manually structured paperwork, or carry out their duties manually, because virtually all office tasks are handled with electronic and telecommunication gadgets.

As recounted by Duniya (2011), offices in the 21st century are well equipped with office technology devices that facilitate productivity, accuracy, and efficiency of work output. The presence and availability of these facilities in the organizations of the secretaries and the ability of the secretaries to use the facilities had a great impact on the performance of the secretaries. This is made possible through the use of computers and computer software to

manage several secretarial tasks. The result of such performance is attributed to the fact that the secretarial profession has undergone tremendous transformation.

The 21st century has seen a new birth of a secretary with the advent of Information Communication Technology (ICT), which has taken the place of the typewriter, in the early days he/she works with. Affirming the above assertion, Aynsley (2015) reported that any office of today that is lacking in information and communication technology, work in such offices would be boring and uninteresting. This shows that the secretarial work in offices where information and communication technology facilities are available would be found to be friendly and sociable.

2.4   Secretaries Roles and Responsibilities

As technology continues to expand in the office across the world, the role of the office professional such as the secretary has greatly evolved (Butler 2012). He further argued that this has resulted in the increased role of administrative secretary's activities such as sorting, retrieving, and integrating information for dissemination to staff and clients. These additional activities that secretaries carry out are made with a variety of equipment such as facsimile machines, photocopiers, and telephone systems (Butler 2012). He argued that secretaries with the aid of personal computers now perform certain tasks such as managing databases, composing correspondence, writing and creating documents via desktop publishing, and using digital graphics previously performed by managers and professionals. In the same vein, Atakpa (2010) stated that secretarial functions everywhere in the world have undergone a lot of technical changes. As a result, modern office equipment which allows the secretary to increase her efficiency abound. Many office functions and secretarial duties that were previously done manually have been mechanized. Thus, the diversities of these office technologies require the secretary to possess new skills and sub-skills to enable her to be relevant in the modern office. Also, Etonyeaku (2010) postulated that the modern office had rapidly changed as a result of office automation, which brought about new methods of carrying out functions performed by people in organizations. At the centre of the new trends in the office are the office information systems and these new trends in technological innovation place greater responsibilities on secretaries. The secretarial function, though a supportive function, requires a large amount of initiative, tact, and resourcefulness to succeed. Apart from the traditional responsibilities, such as typing, taking dictation and transcribing, managing records, receiving, storing, and retrieving information or operating the computer, attending meetings, and answering telephone calls, the

secretary now carries out research, prepares the manager's itinerary, makes travel bookings and hotel reservations, supervises the junior workers, and makes some decisions using his initiatives. This is supported by Onifade (2009) who expressed that a secretary is an assistant to a manager.

A secretary should be able to answer some questions on behalf of the boss. For example, a student who wants adequate information about the admission process into an institution should not wait to see the Registrar of the institution. A secretary who is familiar with the Institution's policies and admission processes should relieve the boss of such burden by providing accurate information. He should be able to coordinate the administrative activities and organize the office for efficient performance. The secretary is a member of a team in the workplace and therefore should always be cooperative and supportive. He should be able to write and present reports and disseminate information using websites and e-mail.

In furtherance to the above, Igbinidion (2010) identified the secretary's responsibilities to include; taking dictation and transcribing it into correspondence which is at once dispatched to its business destination. He highlights some forms of these correspondence to include: letters, memos, circulars, orders, quotations, acceptances, contractual terms, and conditions, invitations, etc. Therefore the secretary must be regarded with some respect concerning these onerous functions that impinge on the success of the organization.

2.5   Information and Communication Technology and Secretarial Profession

The introduction of modern information and communication technology to business organizations has significantly changed the mode of operations of secretarial workers. Information and communication technology is an umbrella term that includes all technologies for the communication of information. It encompasses any medium to record information (whether paper, pen, magnetic disk/tape, optical disks – CD/DVD, flash memory, and so on); and also technology for broadcasting information – radio, television, any technology for communicating through voice and sound or images – microphone, camera, loudspeaker, telephone to cellular phones. At present, it is culminating in information communication with the help of Personal Computers (PCs) networked through the internet through information technology that can transfer information using satellite systems or intercontinental cables. Indeed, information and communication technology has become a kind of hub for communicating information, most often using computers.

In the view of O'Brien in Ayandele and Adeoye (2010), information and communication technology is an organized combination of people, hardware, software, communications network, and data resources that collect, transform, and disseminate information in an organization. Global changes also put pressure on all groups to consistently acquire and apply new skills for information and communication technology.

Today's secretaries can perform their duties at a faster rate. The art of writing, filing, calculating, telephoning and other office services have become more automatic. This results in saving time and manpower and the production of office work at an accelerated pace. Information and communication technology increase business efficiency in the provision of services and greater responsiveness to consumer needs. Modern information and communication technology has contributed a lot in improving the professional competence of the secretary because jobs can now be accurately carried out. Electronic machines have reduced the volume of paper in the office and greatly improved the productivity and efficiency of office personnel. Information and communication technology offers businesses the opportunity for rapid communication with people and organizations across the globe enlarging the visibility of business. The use of headsets (for example) has reduced the workload of secretaries. Most personal and business calls are made through handsets and the bulk of telephone calls earlier dealt with by secretaries now go directly to the boss. The boss can also store the telephone numbers of business partners on his handsets and can always have access to it anytime he wants to make a call.

Information and Communication Technology in the secretarial profession has brought a lot of advantages in the sense that it saves labour costs; has a greater measure of accuracy; relieves secretaries of much fatigue and therefore increases output; enhances the appearance of output; it saves the secretary's time. Information and communication technology has brought about the introduction of the following hardware machines into the secretarial profession. They are the Computer, Telephone system, The Internet, Closed Circuit Television (CCTV), Micrographics, Photocopying Machine, Frankling Machine, and Letter Opening Machine.

2.6 Challenges of Information and Communication Technology to Secretaries

The influence of information and communication technology on secretaries cannot be over-emphasized. It has no doubt brought a great improvement to the work of secretaries. However, some challenges associated with information and communication technology are evident among some secretaries.

The rapid changes in business organizations, as a result of office automation, have brought about new procedures in executing job responsibilities performed by people, including secretaries. Consequently, the efforts towards the use of technologies by secretaries have met several challenges as pointed out by Onifade (2010). These challenges include inadequate ICT infrastructure such as computer hardware and software, resistance to change from traditional to modern methods, lack of skilled manpower to manage available systems, and inadequate training facilities.

A further challenge is the effective use of modern technology like e-mails, WhatsApp, Facebook Messenger, and so on. Some secretaries still run around to distribute agenda and notice of meeting whenever there is a meeting thereby wasting time and energy although information technology has provided the means of making the work of secretaries stress-free in the area of sending the agenda and notice of the meeting to the concerned members through e-mail, WhatsApp and Facebook messenger. Other secretarial work like setting up meetings could be done through the process of teleconferencing or videoconferencing using the internet which the information and communication technology but has posed a great challenge to the secretarial staff and his job because of the rapid change, multitude of systems, and lack of knowledge in this area of modernization.

Also, some secretaries as computer users in the 21st century, are being challenged in the area of errors and accidents such as human error, procedural error, software error, and so on (Nna 2012). This also includes solving minor problems like the inability of the printer, mouse, and keyboard to respond and not being able to fix it within time. Knowing modern machines such as computers is not intruding into another man's field, but rather to boost the accomplishment of office tasks, not to panic whenever the computer indicates a problem, the message that is displayed might lead to solving the problem without inviting an engineer.

Given the innovations brought about by information and communication technology, the expectation is that every secretarial staff will strive to cope with the challenges posed by these skills and that business educators are not left out because they are the ones who impact the knowledge of the secretaries. To be able to cope with the challenges of technological skills, every progressive secretary and business educator must face the future while living the present fully. Some people wait for others to develop them and wait for years without having such opportunities. Secretaries should not wait for others to move on in life (Ihionkhan, 2009). According to Ihiokhan (2009), the first step to challenges is to embark on self-analysis. This would enable one to ascertain inadequacy, limitation, and strength and in the end, draw an action plan for the future. Functional training, moderation of attitude, forward-looking, manpower

development, re-orientation, and training coupled with good management are necessary struggles. According to him, a major challenge of these new trends for the secretary is to learn the tricks of computer manipulation. The secretary should be alive to all forms of innovative techniques affecting word processing and computer operations. Unless the secretary is equipped enough to be able to cope with the modern demands, he/she may become irrelevant and low-priced in the employment market in this millennium.

2.7 Secretarial Education Training and Information and Communication Technology (ICT)

To be prepared to face the challenges of the 21st century in our industrial world, the integration of information and communication technology in learning must be done, and the use of information and communication technology tools and application of technology must be supported (Lewis &McNicol 2015). This is because, the ability of people to write, speak, and analyze information can be enhanced by individual growth through information and communication technology facilities (Mishra & Mehta 2017). One aspect that secretaries should be exposed to is the information system which encompasses a variety of topics including systems analysis and design, computer networking, information security, database management, and decision support systems (Hilbert 2011). The secretary has to be well-developed in terms of education as well as well-equipped with office technology gadgets to meet the present challenges of the modern office. It is indeed a known fact that the roles of secretaries in modern organizations have been revolutionized by technology (Armah 2015). This revolution has created an avenue that permits the secretary to migrate from a mere receptionist and information recorder to a business strategist (Appah & Meh 2011). This confirms that the secretary, who is the chief organizer of meetings, record keeper, handler of incoming and outgoing mail of the organization, and one who manages various activities in the office, should be up-to-date with the desired information and communication technology skills as well as take some measures that could improve his/her skills and performance (Mdlongwa 2012).

The information and communication technology provides the secretary with the advantage of keeping backup information in case the original information is lost. It is therefore required for the secretary to update practical knowledge and information and communication technology competencies through long and short-term training. Indeed, information and communication technology enables self-placed training in which the secretary can explore the benefits of information and communication technology to improve the work (Livingston & Tonia 2012).

Additionally, Abubakar (2010) reported that computer technology is highly considered the preferred resource for preserving information and an avenue for documentation and capturing of information. Computer literacy is important in this information age, though what is more fundamental and more difficult is information literacy. This is because there must be the required thinking and communication skills that are supposed to be used to handle and process information in any form. Without information literacy, Andoh (2012) maintained that there would be the danger of uncritically accepting whatever is on the internet and failing to see the need to look at other sources of information. The emerging technological demand of the world of work would necessitate that only proficient secretaries would assume greater roles and responsibilities in organizations. The secretary who is proficient in the use of information and communication equipment will be more relevant in management-level decisions. The acquisition of computer skills would enhance the entrepreneurial development of the graduate secretaries. More graduate secretaries would venture into self-employment programmes such as; operating professional consulting firms, sales/supply of office stationery, office equipment, and consumables, and starting secretarial institutes and computer centers (Adelani, 2009).

Islam and Alam (1999) conducted a study to explore the prospects, influence, and challenges of office systems automation in Bangladesh. The study revealed that new office technology offers new opportunities for improving the organizations and their employees. The study also revealed that the old workforce must be frequently trained to use the new technology and to adopt the changes in occupation and work environments, the executive should assume an active role as a change agent and be ready to cope with the global competition. The study is related to the present study because both studies seek to explore the implementation, influence, and challenges of modern office technologies but differ in the sense that this study covered all types of workforces while the present study primarily focuses on office secretaries.

Akpomi and Ordu (2009) carried out a study to explore modern office technology and secretaries' productivity in private business organizations in Port Harcourt, Rivers State. A structured questionnaire was developed for collecting data, and the instrument was administered to 40 office secretaries of 40 randomly selected private business organizations in the study area. Mean and chi-square were used in the analysis of data collected. The findings from the study revealed the availability of modern office technologies in private business organizations and their use by secretaries causes an increase in productivity. The study is related in that, both studies identified modern office technologies that are used in business organizations by secretaries. Nonetheless, they differ in that, the present study

considers public organizations and the challenges posed to the secretaries of tertiary institutions about the utilization of emerging office technologies.

Onifade (2010) conducted a study to explore the secretaries' perceptions of the innovations and inventions of new office technologies. The study revealed that the emergence and introduction of modern office technologies in various organizations have thrown some secretaries out of their jobs thus causing apprehension amongst the employed office secretaries. The study further revealed that for a secretary to remain relevant and keep his job, he needs retraining to gain more knowledge on how to operate and manipulate these technologies and also keep abreast of their novel challenges. This study is similar to the present study in that, both seek to identify the importance and the need for retraining for more knowledge on how to operate and manipulate the new office technologies by secretaries. However, unlike the present study, this study failed to evaluate the utilization of modern secretarial technological supports.

Khalid, Swift, and Cullingford (2002) conducted a study to examine the effects of new office technology on both managers and secretaries in private and public sector businesses in the United Kingdom and Malaysia. The sample of the study comprised 490 secretaries and 300 managers in the United Kingdom, and 193 secretaries and 240 managers in Malaysia. Both quantitative and qualitative methods were employed through the use of questionnaires and semi-structured interviews. The findings of the study revealed that both managers and secretaries are using new office technology and software packages regardless of the size of organizations, secretaries are more proactive with new roles and responsibilities, and exhibit more positive attitudes towards new office technological supports. The findings also revealed that both managers and secretaries are more extensively involved in both formal and informal training than in the past due to the ever-changing technology. This study is similar to the present study in the sense that they both seek to identify the influence of the new office technology on secretaries. However, the difference between the two studies is that while the previous study was in the United Kingdom and Malaysia and covered both private and public sector businesses, the present study is in Nigeria and it covered only tertiary institutions.

Adedayo and Akinyele (2012) carried out a study to explore the approach to successful professional secretarial practice in Nigeria. Adopting SWOTT Analysis, the study revealed that tactics for successful professional secretarial practice require the application of ethical values and demands by the secretaries, secretaries need to possess precise secretarial competencies and skills needed in the workplace, and in the ever-changing technological workplaces; secretaries need to be more concerned with updating their skills acquisition and

development. The study is related in the sense that both studies emphasized skills acquisition and development through training and re-training. Yet, these studies differ in the sense that, the previous study did not emphasize emerging secretarial technological supports which the present study placed much emphasis on.

Marino (1993) carried out a study to examine the use of information technology and its relationship to the job characteristics of administrative support personnel. Responses from 408 of 673 administrative support personnel including the office secretaries indicated that they are proficient majorly in the use of text-intensive tools and substantially possess higher skill levels using spreadsheets, databases, desktop publishing, and graphics. Both studies would be related because they seek to evaluate the use of secretarial technological support by office secretaries and its influence on the secretaries. However, the studies differ concerning the period of study and the study population. Marino's study encompassed all administrative support personnel while the present study concentrates only on the secretaries.

Agervold (1987) conducted a study to examine the attitudes of office workers towards the introduction of new technology, the evaluation of the impact of the technology, and the connection between work with new technology and stress. The study sampled 907 white-collar workers. Findings revealed that factors concerning both the quality of work and workload increased as a consequence of the introduction of new technology. The studies would be related in the sense that both studies seek to evaluate the influence of new office technology, but they differ concerning the period of study and study population. This study was carried out in 1987 and its study population included all classes of workforce, whereas the population of this study is the secretaries.

3 METHODOLOGY

The descriptive research design was employed for this study. The design was considered appropriate for the study because it has a major function of describing accurately the characteristics involved in the influence of information and communication technology on modern-day secretaries. The population for the study was 75 secretaries. The population is made up of 45 secretaries from Ekiti State University, Ado-Ekiti, and 30 secretaries from the College of Education, Ikere-Ekiti. A 35-item questionnaire tagged Influence of Information and Communication Technology on Modern-Day Secretaries (IICTMDS). The questionnaire was divided into two parts: Part A contained items that sought to elicit the personal information of the respondents. Part B was further divided into three sections. Section one with 10 items, sought information on the level of awareness of ICT facilities available for use by secretaries in tertiary institutions in Ekiti State. Section two with 10 items sought information

on challenges encountered in the adoption and effective utilization of ICT by secretaries and Section three with 15 items, sought information on the use of information and communication technology and secretaries productivity.

A modified 4-point Likert-type questionnaire with SA (Strongly Agree), A (Agree), D (Disagree), and SD (Strongly Disagree) options were used to measure the response. A reliability test of Cronbach's alpha of 0.954 was used as the study instrument. The analysis of the data was done using Pearson's Product Moment Correlation and Chi-Square at $p < 0.05$ level of significance.

4. Findings

Research Question 1

What is the level of awareness of Information and Communication Technology in the job of secretaries in Ekiti State?

Table 1: Awareness Level of ICT facilities available to secretaries.

Level of awareness of ICT	Frequency	Percentage (%)
Low (12 – 15.62)	15	21.43
Moderate (15.61 – 28.37)	50	71.43
High (28.37 – 34)	5	7.14
Total	70	100

Table 1 presents the level of awareness of ICT facilities available for the use of secretaries in Ekiti State tertiary institutions. The result shows that out of 70 respondents sampled, 15 representing 21.43% have low levels. Those who had moderate levels were 50 representing 71.43% while those with high levels were 5 representing 7.14%. This showed that the level of awareness of ICT facilities available for the use of secretaries in Ekiti State tertiary institutions was moderate. Therefore, it can be concluded that modern-day secretaries are aware of the influence of information and communication technology (ICT).

Research Question 2

What are the challenges in the adoption and effective utilization of Information and Communication Technology by the secretaries?

Table 2: Means rating of Challenges encountered by Secretaries in Ekiti State tertiary institutions

S/N	Challenges encountered by Secretaries	Agree Frequency (%)	Disagree Frequency (%)	Mean	Standard Deviation
11	Resistance to change from traditional to modern methods	68 (97.1%)	2 (2.9%)	3.00	0.417
12	Lack of skilled manpower to manage available systems	65 (92.9%)	5 (7.1%)	3.10	0.640
13	Lack of social support in work areas	61 (87.1%)	9 (12.9%)	3.00	0.780
14	Electromechanical problem	70 (100%)	0 (0.0%)	4.00	0.000
15	Inadequate ICT infrastructure, e.g. hardware and software	65 (92.1%)	5 (7.1%)	3.29	0.801
16	Fear of job replacement	68 (97.1%)	2 (2.9%)	3.46	0.652
17	Virus and malware attacks	70 (100%)	0 (0.0%)	3.91	0.282
18	Inadequate training facilities	70 (100%)	0 (0.0%)	3.26	0.440
19	Lack of knowledge and skill in the use of software programmes	62 (88.6%)	8 (11.4%)	2.91	0.775
20	Poor electricity distribution	70 (100%)	0 (0.0%)	3.96	0.204

Source: Research Survey

Table 2 shows that 97.1% of the respondents agreed that there is resistance to change from traditional methods to modern methods. 92.9% of the respondents agreed that the secretaries in Ekiti State tertiary

institutions lack the required skills to manage available ICT facilities while 87.1% of the respondents agreed that there is no social support in their work areas. Also, 97.1% of the respondents agreed that they are faced with the problem of job replacement. In addition, the table shows that 88.6% of the respondents agreed that the secretaries lack the required knowledge in the use of software programmes. Finally, all the respondents agreed that electromechanical problems, virus and malware attacks, inadequate training facilities, and poor electricity distribution are challenges to the effective utilization of ICT among the secretaries in Ekiti State tertiary institutions.

Testing of Hypotheses:

Hypothesis 1: The use of information and communication technology has no significant influence on modern-day secretaries.

Table 3: Chi-square values on ICT for modern-day secretaries

Item	SD	D	A	SA	Total	X^2	df	P
11	0	0	0	70	70			
12	56	14	0	0	70			
13	64	6	0	0	70			
14	10	8	52	0	70			
15	5	0	35	30	70	898.264	27	0.00
16	7	0	15	48	70			
17	0	0	0	70	70			
18	0	0	0	70	70			
19	3	0	15	52	70			
20	5	0	20	4	29			
Total	150	28	137	344	659			

P<0.05 (Significant)

the overall Chi-square statistic is 841.989 and has a p-value of 0.00 p<0.05, we do not accept the null hypothesis. This P-value is less than the analysis confidence level - α = 0.05, thus, this concludes that the use of information and communication technology has a significant influence on modern-day secretaries.

Hypothesis 2: There is no significant relationship between the use of information and communication technology and secretaries' productivity.

Table 4: Pearson's Product Moment Correlation of the relationship of the use of ICT and secretaries' productivity

Variable	*N*	r_{eal}	*P*
Secretaries Productivity	70	0.327*	0.00
Use of ICT	70		

P<0.05 (Significant)

Table 4 showed that r_{cal} = 0.327; p<0.05. Thus, the null hypothesis is not accepted. This implies that there is a significant relationship between the use of information and communication technology and secretaries' productivity in Ekiti State tertiary institutions.

5. DISCUSSION OF FINDINGS

The result of this study showed that the level of awareness of ICT facilities available for the use of secretaries in Ekiti State tertiary institutions was moderate thus correlating with Malavia and Gogia (2010) who thought that some secretaries are aware of the advantages of information and communication technology which resulted in the creation and use of computers and software programmes which has simplified the work of the secretary.

The result of the finding showed that there are challenges to the effective utilization of information and communication technology among the secretaries in Ekiti State tertiary institutions. 97.1% of the respondents

agreed that there is resistance to change from traditional methods to modern methods. 92.9% of the respondents agreed that the secretaries in Ekiti State tertiary institutions lack the required skills to manage available ICT facilities. Also, 97.1% of the respondents agreed that they are faced with the problem of job replacement while all the respondents agreed that electromechanical problems, virus and malware attacks, and inadequate training facilities. All these agreed with Onifade (2010) and Nna (2012) which identified some factors as challenges associated with the use of ICT among which were those revealed by this study.

The result also revealed that despite the challenges in the effective utilization of ICT encountered by secretaries, the level of productivity of secretaries in Ekiti State tertiary institutions is high which correlates withEtonyeaku (2010) opined that secretaries are gradually shifting from the use of papers and working with manual machines to virtually performing all office tasks with electronic and telecommunication gadgets.

The findings from the tested hypothesis revealed that the use of information and communication technology has a significant influence on modern-day secretaries. Many emerging technologies were utilized by the secretaries in Ekiti State tertiary institutions. Some of the technologies utilized are computer systems, photocopy machines, electronic mail, digital fax machines, application software, laptops, and phone/answering machines. The findings of this study agree with that of Atakpa (2013) who asserted that emerging office technologies such as data processing, internet, and telecommunication were utilized by secretaries of business organizations. The findings are also in agreement with the findings of Akpomi and Ordu (2009) who found that emerging office technologies such as digital fax machines and binding machines were utilized by secretaries to improve their proficiencies in carrying out office functions.

It also revealed that there is a significant relationship between the use of information and communication technology and secretaries' productivity. It is incontrovertible from the empirical evidence that the secretaries' job performance is dependent on the utilization of ICT facilities in this computing age. It is not out of context to assert that the rate of job performance is greatly influenced by a degree of literacy and competence in the utilization of ICT facilities. Similarly, ICT will not replace traditional report writing but enhance efficiency, credibility, and accuracy by speeding up processes (Kombol, 2006). Secretarial functions such as minute writing, filing of documents, receiving incoming mail, and dispatching of outgoing mail are largely modified by ICT thereby making the secretaries more efficient and productive.

6.   CONCLUSION AND RECOMMENDATIONS

Secretaries in Ekiti State University, Ado-Ekiti, and College of Education, Ikere-Ekiti, Ekiti State are quite aware of the availability of ICT facilities. They had a moderate level of utilization of the facilities with few distinctive challenges identified in the course of accessing ICT facilities, which included: inadequate training facilities, resistance to change from traditional methods to modern methods, the problems of job replacement, electromechanical problems, virus, and malware attacks and lack the required skill to manage available ICT facilities which can be tackled by acquiring several skills and getting involved in training and re-training programmes to be proficient and remain relevant in the ever-changing technological world. To improve the efficient performance of the secretaries, the Managers of the institutions should pay more attention to organizing periodic training and development programmes on office automation technologies so that secretaries are up to date with the emerging advancements in office technologies. Training is the ultimate measure of attaining a high level of productivity. Therefore, there is a need for training and re-training of the secretaries on ICT to realize maximum output. Secretaries should be willing to personally train and develop themselves through personal funding of relevant training, procurement of certain new technologies such as application software, buying of relevant books, and participating in professional social network activities. The secretaries should always be ready and open-minded to acquire additional training/skills development, bearing in mind that changes occur frequently in the line of their chosen career and they are not left behind in the use of ICT in this digital age. Further studies could consider the role and impact of Information and Communication Technology (ICT) on Human Resource Management practices (HRM) of tertiary institutions.

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Profile

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