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Send your feedback to

The Editor, IUP Publications

(A Division of ICFAI)

52, Nagarjuna Hills

Panjagutta, Hyderabad 500082

Andhra Pradesh, India

Tel: +91(40)23430448

E-mail: info@iupindia.in

Subscriptions**For subscriptions and related enquiries write to:**

The Executive, Subscriptions

IUP Publications

(A Division of ICFAI)

52, Nagarjuna Hills

Panjagutta, Hyderabad 500082

Andhra Pradesh, India

Ph: +91(40)23430448

E-mail: jms@iupindia.in; info@iupindia.in

Website: www.iupindia.in

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Information Technology (IT) plays an increasingly significant role in our daily lives. It has been transforming the technological, economic, political as well as social landscapes. Business houses have embraced Information and Communication Technology (ICT) to deliver their products and/or services in a timely and cost-effective manner. Their business processes have been increasingly transformed from manual to automated ones. As a result, they gain competitive advantage, ensure customer satisfaction and manage customer attrition. During the last decade, the governments have also recognized the potential of IT to improve governance, facilitate citizen-to-government interactions and serve citizens better. Consequently, e-governance initiatives have been increased manifold in recent years. e-Governance has evolved from one-way posted contact and program/policy information dissemination to citizens interacting and transacting with government. e-Governance claims increased transparency and efficiency in government policies, programs and service delivery. It also enhances citizens' participation and trust in democracy. However, implementation of e-governance initiatives is a major challenge particularly in a country like India, where two-thirds of the population lives in villages that inherently inflicts several hurdles such as digital divide and technical illiteracy among others. The paper, "A Conceptual Framework for Improving the Efficacy of e-Governance in Rural Areas: An Indian Perspective", by Puneet Kumar, Dharminder Kumar and A K Sharma, proposes a framework that harnesses cloud computing and mobile technology to deliver cost-effective but improved services to citizens. The authors, based on various case studies, claim that the proposed framework can cope with the challenges in rural areas while delivering e-services effectively.

The paper, "The Challenges Posed by Information Technology to Secretaries: A Study with Reference to Federal Polytechnic, Bida, Niger State, Nigeria", by Johnson Adegbenga Ajiboye, Mary Adebola Ajiboye and Juliet Omozokpia, seeks to find out the impact of ICT on secretarial profession. The study finds that use of computers has enhanced secretarial efficiency and made the job pleasurable and attractive. It has increased the productivity of a secretary as well as the speed and accuracy of her work. Technology has broadened the scope of a secretarial job from the derogatory appendage status to an independent member of the organization, information officer, manager and a custodian of organizational information reservoir. The study also reveals that most of the secretaries lack the required skills of ICT to cope with the modern automated office. Thus, the study recommends revision of the curriculum of secretarial studies to accommodate ICT which enriches secretarial profession and provides additional career opportunities for secretaries.

Over the years, organizations have religiously relied on the traditional enterprise data stored in relational databases to mine business intelligence. Recently, the non-traditional, less-structured data from sources such as weblogs, e-mails, social media and sensors has drawn ample attention and is considered as a potential treasure trove for business intelligence analysis. The paper, "Big Data Analytics: Applications and Benefits", by K V N Rajesh, provides an overview of this useful data and its applications.

Phishing is an identity theft to steal sensitive information on the Internet with malicious intention. The menace of phishing is growing, although several measures have been suggested to combat it. The paper, "Seclayer: A Plugin to Prevent Phishing Attacks", by Ayush Ghosh, describes an anti-phishing plugin that detects malicious websites with more accuracy.

A C Ojha
Consulting Editor

The Challenges Posed by Information Technology to Secretaries: A Study with Reference to Federal Polytechnic, Bida, Niger State, Nigeria

*Johnson Adegbenga Ajiboye**,
*Mary Adebola Ajiboye** and Juliet Omozokpia****

This study was conducted to identify the challenges of information technologies on secretaries in the Federal Polytechnic Bida, Niger State, Nigeria. The study was embarked upon to emphasize the importance or significance of secretaries as they face the challenges of the information technology in an ICT era. The research was carried out using 50 secretaries. The instrument used in the collection of data was a questionnaire and the data collected was analyzed using the SPSS software. From the analysis of data collected, it was found and concluded that among other things most secretaries lack necessary skills required for ICT in the modern office and most of them with just typing and shorthand skills are on the verge of losing their jobs. Although, it was discovered and concluded that secretaries will not be replaced by computers and that the ones with ICT skills are in high demand and with ample career opportunities in the modern office. It was then recommended that organizations should train and retrain their secretaries to be ICT-compliant and that the curriculum of secretarial study programs should be reviewed and widened to include ICT courses so as to give potential secretaries an ICT background.

Keywords: ICT, IT, NBTE, HND, ND

Introduction

The world is changing and all that exists in it are changing along with it. That is why the secretarial profession, one of the oldest professions in the world, is changing too. Secretarial profession which is a noble profession existed in the early stage of the development of man and practitioners were associated with kings, top military officers and great men. In those early days, the secretary's job was tedious, as it was narrow

* Lecturer, Department of Electrical and Electronics Engineering, Federal University of Technology, Minna, Nigeria; and is the corresponding author. E-mail: ajiboye2003@yahoo.com

** Research Student, Department of Computer Engineering, Federal University of Technology, Minna, Nigeria. E-mail: ajiboyemary@gmail.com

*** Research Student, School of Science and Technology, National Open University of Nigeria, Minna Study Centre, Nigeria. E-mail: j.omozokpia@yahoo.com

and limited to only taking notes of speeches of great men and keeping secret official records. The secretary had to file documents in shelves in the office. This was done continuously to the extent that it became difficult for the organization to retrieve information and communicate quickly when needed. Files were being accumulated in many offices and even some vital records got missing.

Later people developed other means of processing information. The typewriter changed the course of things for the secretary as he started to learn how to manipulate it as well as writing with his hands. It added more responsibility to the secretarial career and eventually affected the general training of secretaries to meet the challenges of the emerging business organizations. However, the advent of technology and the metamorphic world has not only changed but has also significantly enlarged the profession. World economics has changed, social order and value orientation is changing day-by-day. Technology has brought about monumental development in communication systems worldwide and as a direct consequence, secretarial profession is becoming more and more multi-dimensional and sophisticated. This shows that for a secretary to be employed today in modern information technological world he must be able to operate the modern equipment efficiently. It should therefore be the paramount duty of secretaries both practicing and potential to seek higher knowledge in all aspects, especially computer literacy. This will make him to fit into today's modern office. In view of this, the researcher intends to explore the realities and impact of Information Technology (IT) to secretaries and also found out the opportunities that abound for them in the modern office.

All over the world, technology is seen in all facets of the business world. This development has affected the way people behave, offices function, equipments are used by workers, skills are used in different fields and so on. Data can be communicated and transmitted within or across countries and e-mail and/or Internet facilities abound. The global technological revolution has transformed every sector and profession. Manufacturing and construction industries have benefited. Agricultural and educational sectors have also reaped the dividends. We now have electronic banking facility which enables users to check their bank balances. People can buy and sell shares through these facilities and can even make airline reservations. Doctors can seek second opinion on difficult cases through Internet. Technology has made the globe a village.

In the light of the above, it is considered appropriate for all secretarial staff to respond to the changing environment. Technology introduces new ways of doing things and thus creates jobs and opens the way for new interests. It does not create unemployment or redundancy but it encourages training and retraining. It enhances speed, accuracy, efficiency and effectiveness. Information is both resource and power. Skills acquired through technology, i.e., satellite technology/CNN, gave powers and influence to the owners although it can violate privacy (Elaigwu, 2000).

The study aims at identifying the challenges of IT to secretaries in the Federal Polytechnic, Bida, Niger State, Nigeria.

2. Literature Review

The literature reviewed was organized under the following headings:

- History of IT;
- Concept of IT;
- Definition of Secretary;
- Technological Development in Secretarial profession;
- Impact of IT on Secretarial Profession; and
- Prospects of IT to Secretaries

2.1 History of IT

The history of IT dates back to as early as 2600 BC when the Egyptians would write on the papyrus plant. The history of IT can also be classified into four basic periods which are:

1. Pre-Mechanical Age – 3000 BC to 1450 AD;
2. Mechanical Age – 1450 to 1840;
3. Electro-Mechanical Age – 1840 to 1940; and
4. Electro Age – 1940 to Present

However, Darby (2010) gave a brief history of modern IT as follows: In 1957, Planar Transistor was developed by Jean Hoermi. With this technology, the integrated circuit became a reality. In 1969, the UNIX operating system was developed. The first operating system to run on a minicomputer and could handle multitasking and networking. Then Motorola Microprocessor chip was developed in 1974. This was followed by Apple II computer which came in 1977 fully assembled with a built-in keyboard, monitor and operating system software. Then in 1980, Artificial Intelligence was developed as a separate discipline. The Power PC chip was introduced in 1991, followed by the World Wide Web (www). In the year 2002, DVD was introduced. Broadband took off in 2003. Eventually in 2005, Blogs were introduced.

2.2 Concept of IT

The IT revolution began with the development of the first computer—the hardware of computer-based IT in the 1950s. The language of computer is a digital language of zeros and ones, as also each number, each color and each sound.

In the language of computer, it takes a lot of zeros and ones to express even a simple sentence, to say nothing of complex color graphics or moving video images.

Nevertheless, modern computers can read, process and store millions of instructions per second enabling the efficient secretary to effectively handle the day-to-day activities of the organization.

The National Policy on IT (2001) described IT as the bedrock for national survival and development in a rapidly changing global environment and defines it in two ways: First, it explained that the term IT means “computers, ancillary equipment, software and firmware (hardware) and similar procedures, services, (including support services) and related resources”. In the second place, IT includes “any equipment or interconnected system or subsystem of equipment, movement, control, display switching, interchanging, transmission or reception of data or information”.

According to Obi (2001), IT is defined as the technology involved in the act of informing or in the collection, storage, retrieval, reproduction, processing, diffusion and transmission of information (knowledge, intelligence, news) which may be a resource or a commodity or both.

Also, Laudon *et al.* (1994) said that IT includes all the different means, methods and tools that humans have used throughout history to help manage information, conduct business, communicate with others and better understand the world. This definition is very elastic. It incorporates virtually every kind of device used in gathering and disseminating information. Generally, IT covers the harnessing of electronic technology for the information processing needs of business organizations.

2.3 Definition of Secretary

The word ‘secretary’ is derived from the Latin word *secretum*. Many people have tried to define the term ‘secretary’ in different ways.

According to Austine (1980), a secretary is said to be a person who acquires the basic secretarial skill of shorthand and typing, having enough knowledge and practical experience in office work and who is able to cope with filing, operation of simple office machines and reception in the performance of her duties.

The National Association of Secretaries (1973) defines a secretary as an assistant to an executive possessing mastery of office skill and ability to assume responsibility without direct supervision, who displays initiative, exercise judgment and makes decisions within the scope of her authority.

The above definition of a secretary reveals that a secretary can be any person employed in an organization and who is given the task of handling both the clerical and the administrative duties in an organization. Apart from the professional point of view, a qualified secretary is a person who has attained a high level of education such as Bachelor of Science or Higher National Diploma (HND) in secretarial studies or the equivalent.

The secretary's success and worth to her employer depends on her skill in handling people and in creating an impression which will promote the image of her organization. She possesses the human relation and qualities of being polite, cheerful and she is a link between her boss and the public and not a barrier. She creates a good image of the organization to the public through good command of language and telephone manners. It is this opportunity of service which makes the secretary's job different from that of the ordinary typist and others.

Even with these definitions, the term 'secretary' is to some people still hazy, hence the researcher would like to buttress these definitions by highlighting some of the main functions of the secretary in order to give a clear view of the type of secretary we have in mind here. Some of the modern functions of a secretary are:

Confidentiality with Matters: As a person entrusted with secrets, he makes sure that different confidential matters that concern the organization are treated as expected. The secretary makes sure that matters that are supposed to be treated outside the knowledge of other staff are so treated. This role protects the image and integrity of the organization.

Answering Telephone Calls: The secretary acts as a link between the firm and the outside world through the telephone. He/She must possess the ability to answer telephone calls and know how to deal with different callers.

Making and Scheduling Appointments: It is the duty of the secretary to fix appointment for his boss. In doing so, he/she must avoid clashes and remind the boss of his appointments.

Making Traveling Arrangements: According to Omeje (2009), the secretary can rely on the traveling department or the traveling agent and others when planning a trip, but the secretary is responsible for checking the completeness and the accuracy of the final arrangements.

Operating Computer: According to Omeje (2009), since the beginning of the early 1950s, electronic data processing has brought about major changes in record keeping, accounting and financial operations; the secretary must know all these so that he can perform well in computer operation. The secretary is expected to be able to operate a computer to prepare financial statements and other confidential documents and keep proper and accurate official records through filing and indexing in the computer system.

Handling of Communication and Information: Communication is all about understanding another person's point of view, intentions, recognition of grievance and the need for an organization to act in a particular way to achieve a common purpose. The secretary communicates with a large number of people like the customers and visitors having business dealings with the company. Right information at the right

time helps businessmen to make right and useful decisions in the organization. When information is inaccurate, the entire organization suffers and when it is accurate and timely, the organization moves effectively towards its objectives. The secretary must be fully alert and not forgetful. A forgetful secretary slows down the achievement of organizational goals.

2.4 Technological Development in Secretarial Profession

In order to understand how the role of a secretary has evolved, it is equally important to appreciate the history and the traditional role which has continued to provide effective administrative management support in the office.

As Aromolaran (1999) puts it, however, the roles of secretaries were being transformed from the traditional role of taking notes in shorthand and transcribing same on manual typewriters to storing, retrieving and text editing information on computers, word processors, electronic typewriters and computer storage devices such as diskettes and magnetic discs/tapes due to the 'winds of change' in business circles in terms of IT and revolutionizing information systems.

The office of 'yesteryears' witnessed the traditional role of typing, taking dictation in shorthand and using the manually-operated machines such as the manual typewriter, duplicating machines, spirit duplicators and other office machines. The present-day office is witnessing the era of electronically operated (by touch of a button) office equipment and globalization in all spheres of business requirements. The advent of information and communication technology in the office has assisted the secretary in many ways. For example, the secretary has the ability to work with a word processing machine to prepare attractive letters, reports and professional looking paper using desktop publishers, access Internet facilities, surf the web, communicate with other branches of the organization through electronic networking, etc.

Iredia (2001) highlighted some of the following technological developments in secretarial profession:

- a. Document Creation and Production: Before the advent of technology, records were kept by someone known as 'penman' trained to write fanciful writings. The penman used quill feathers as pen in writing and such writings were called penmanship (Micheal, 1967). Between 1814 and 1870, there was a great expansion in commerce and industry, so the need to create and keep more records arose. Three years later, that is, in 1873, technology intervened with the invention of the first manual typewriter by Christopher Sholes.

The typewriter changed the course of things for the secretary as he started to learn how to manipulate it as well as writing with his hands. The use

of typewriter became recognized as one of the substantial roles of the secretary and the name 'penman' was dropped for 'typist'. It added more responsibility to the secretarial career and eventually affected the general training of secretaries to meet the challenges of the emerging business organization.

- b. Document Reprography: Before 1870, the period which historians have come to describe as the threshold to business world, when business activities started to develop, the job of document replication was shared between the secretary and a secretarial assistant known then as a 'copy clerk'. Immediately, after that and as a product of the invention of the typewriter, technology again intervened with the production of carbon papers. Carbon papers made it possible for the secretary to obtain, in addition to the original, four or five duplicate copies of the same document at a time. The arrival of carbon paper eliminated the function of copy clerks and enhanced the efficiency of the secretary. Technology did not stop there; it went further to improve and increase the number of copies that can be obtained from the original by inventing stencil and cyclostyling machine, with which hundreds of copies that are as clean and sharp as the original could be obtained. Going further, technology came up with spirit duplicator, wet photocopier and at present dry copier.
- c. Document Storage and Retrieval: In the early years of secretarial profession, the only method of filing documents was numerical arrangement in box files arranged in a wooden cupboard. Technology on its universal journey branched this aspect of secretarial profession and produced flat files, first in wooden shelf, secondly in a steel cabinet, thirdly, in a lateral steel cabinet followed by punched cards, punched tapes, then microfilms which were immediately followed by magnetic tapes and at present floppy discs and diskettes. From the above facts, it appears there is a perfect correlation between technological development and improvement in secretarial profession.
- d. Information Dissemination and Transmission: Technology has greatly influenced the aspect of secretarial profession. The quest for improved method of information dissemination and transmission drew the attention of technology to the production of dictaphone which created another secretarial function known as audio-typing; teleprinter for sending document through telephone lines distant locations; facsimile trans-receiver for sending exact copy of document through telephone line; and recently electronic mail (e-mail), which has just given the secretary another function that is akin to that of postmaster general of an organization.

One basic fact stands out clearly from the above views is the fact that every technological change that affects secretarial profession takes the secretary some steps further in his march towards efficiency and also poses some great challenges.

2.5 Impact of IT on Secretarial Profession

Technology has greatly affected secretarial profession not only in Nigeria, but worldover. Looking at the contribution of technology to the profession in the present time, one begins to imagine what would have become of the profession if technology had not come to its rescue. Technology has completely enveloped secretarial profession such that it is now safe for one to say that without technology there is no secretarial profession. Some of the ways in which technology has affected secretarial profession include:

1. The use of modern word processing machines, starting from electronic typewriter through memory writer to computer, has brought great relief to the secretary, enhanced secretarial efficiency and made secretarial functions pleasurable and attractive.
2. The speed and accuracy with which documents are produced is unrivalled in the history of human skills.
3. Technology has eliminated wastage of secretary's time by saving him of the time he spends on routine job such as creation of files, storage and retrieval of such files, which are now done by the computer.
4. Technology has enriched secretarial job and this enrichment has resulted in job satisfaction for secretaries. A secretary now feels happy and satisfied when he sits before a computer, which is also found on the tables of top executives and important officials in important offices. In fact, the computer has become a status symbol and has turned every job in the world into secretarial profession
5. Technology has brought secretaries into focus and made them important members of the organization as they are now sent on training and retraining on the use of new office equipment.
6. Technology has broadened the scope of secretarial profession. It has severed the secretary from the derogatory appendage status to an independent member of the organization, information manager and a custodian of organizational information reservoir.
7. Technology has brought the whole world to the secretary's table; he/she takes the organization to the world and brings the world to the organization. For this reason, every member of the organization, including the boss, respects him.

8. Technology is gradually revising the general misconception and poor perception of secretaries in Nigerian society. Instead of their being downgraded, they are now being respected. Instead of their being overlooked or looked down on as in the previous cases, they are now being looked up to.
9. Technology has increased the secretary's productivity. A secretary while attending to a visitor may as well set a computer in motion to print copies of needed documents, while at the same time answering a telephone call.
10. Technology has increased the secretary's job opportunities and expanded his areas of specialization. In addition to the conventional duties of a secretary, a secretary can now be engaged as an information officer, information manager, computer operator or chief executive's personal aid.

2.6 Prospects of IT to Secretaries

According to Geoffrey (1980), prospects can be termed as the expectation one looks forward to within a foreseeable future. It simply represents the probable achievements one can lay hold on in the course of time. As a secretary, one performs a variety of tasks that make the profession quite unique and interesting. However, one is unavoidably conscious of the probability of what one can become as he grows along the line, if he is conscientious and hardworking.

Today's secretary is professionally comfortable with computer literacy, knowledge of management and communication skills as well as the willingness to upgrade his education. The career opportunities available to secretaries are many and varied. Within the public enterprise, there is increased specialization in the areas of office managers who leads and coordinates all functions performed in the office like establishing office systems and procedures, maintaining adequate office services and training and motivating personnel, and so on.

Executive positions, such as management and administrative positions, are new secretarial prospects. The continuing march into the information age has resulted in a large increase in management and administrative positions for secretaries and a shift away from the subservient and appendage status. Increasingly, employers are looking for managerial skills such as supervisory potentials, general business awareness, leadership and communication abilities in the secretary they hire. Such skills are becoming essential to career mobility. According to Babatunde (1986), secretaries could be sent for management courses after which they may be converted to management line.

With the introduction of computer and many other sophisticated gadgets, which make secretarial duties easier, many people have been of the opinion that the job of the secretary will but cut off and the demand for secretaries will reduce in the labor market. However, the present situation has proved that there is an increasing demand from

many organizations for secretaries equipped with skills in modern equipment and office automation. In fact, the demand for secretaries who are computer literate is on the increase in the labor market today. Evans (1994) argued that machines and buildings cannot make use of themselves no matter how sophisticated they may be unless there are human beings to manipulate such equipment to the benefit of the organization.

The basic idea is that the computer is a mechanical robot. It does not initiate action and has no ideas of its own. It is only used to process ideas and information. It is as intelligent or as foolish as the operator. One can safely conclude that the advent of computer and modern office equipment has broadened the prospects of secretaries in the labor market.

3. Methodology

Various methods used in collecting the data for the study are discussed.

3.1 Research Design

The research design adopted by the researcher is a case study. It is aimed at eliciting the response of secretaries and their managers with regard IT to their work in Federal Polytechnic, Bida.

3.2 Population of Study

The population of this study is made up of the secretaries totaling fifty (50) in the Federal Polytechnic, Bida.

3.3 Sample Size/Sampling Procedure

The researcher did not adopt any sampling procedure to choose a sample size, but all the secretaries were purposefully picked so as to be able to get the needed information for the study. This is due to less population of secretaries in Federal Polytechnic, Bida.

3.4 Instrumentation

The instrument for data collection was a structured questionnaire. Section A sought information on the personal profile of the respondent. Section B was structured to elicit information from the respondents on the impact and reality of IT on secretary's performance. Each question in section B carried items under them and was presented in a tabular form. These items were rendered on a 5-point Likert's rating scale of Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D) and Strongly Disagree (SD) with each having 5, 4, 3, 2 and 1 points, respectively.

3.5 Data Collection Procedure

The researcher went around to administer the questionnaire to 50 secretaries in the Federal Polytechnic, Bida. The researcher was able to collect back the entire set of administered questionnaires.

3.6 Data Analysis Technique

The data collected from the respondents were analyzed using SPSS software. These items were rendered on a 5-point Likert's rating scale of Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D) and Strongly Disagree (SD) with each having 5, 4, 3, 2 and 1 points, respectively.

4. Results

The analysis was done with SPSS software using multiple responses. Table 1 shows the multiple responses of the challenges of IT; 59.4% strongly agreed regarding the challenges of IT, 24% agreed, 2.8% were undecided, while 5.6% disagreed and 8.2% strongly disagreed. The results show that 59.4% strongly agree regarding the challenges of IT to secretaries.

Table 1: Respondents' SPSS Rating on the Challenges of Information Technology to Secretaries

	Responses	
	N	Percent
Strongly Agree	297	59.4
Agree	120	24.0
Undecided	14	2.8
Disagree	28	5.6
Strongly Disagree	41	8.2
Total	500	100

Figure 1 shows a bar chart depicting the sex. Males had a percentage of 44, while females had a percentage of 56 which shows that the females had a higher percentage and therefore more females are engaged in secretarial work than males.

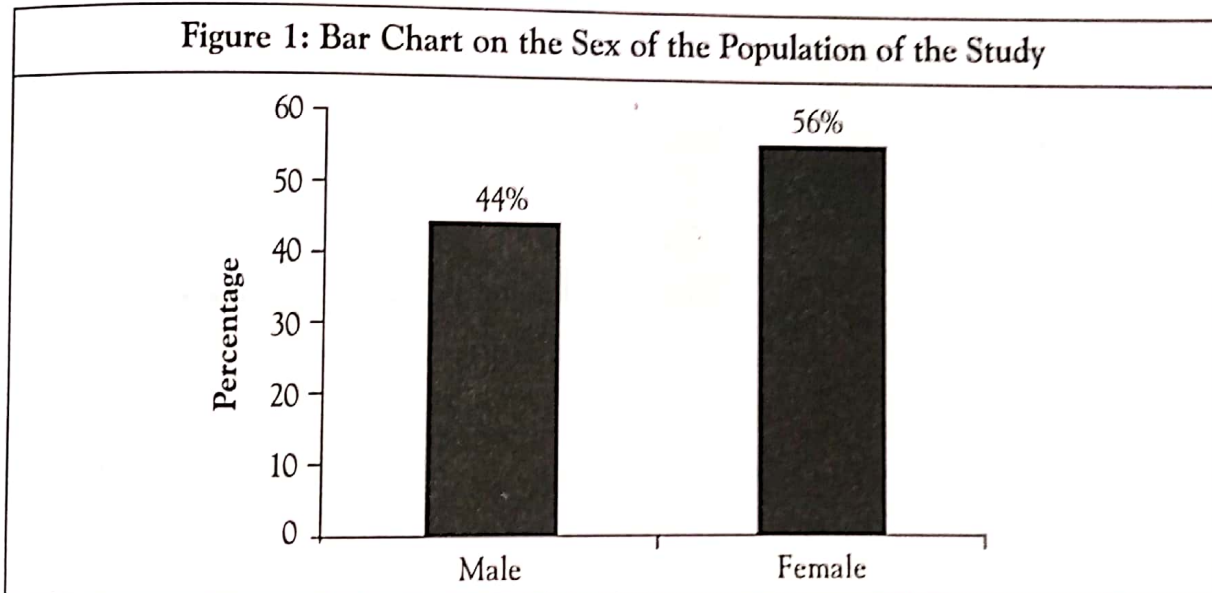


Figure 2 shows the educational qualification of the respondents. From the study, it was observed that Secondary School Certificate of Education (SSCE) had 14%, National Diploma (ND) 40%, and Higher National Diploma/Bachelor of Science (HND/B.Sc.) 46%.

Figure 3 shows that most secretaries lack the necessary skills to handle office equipment (62% strongly agree).

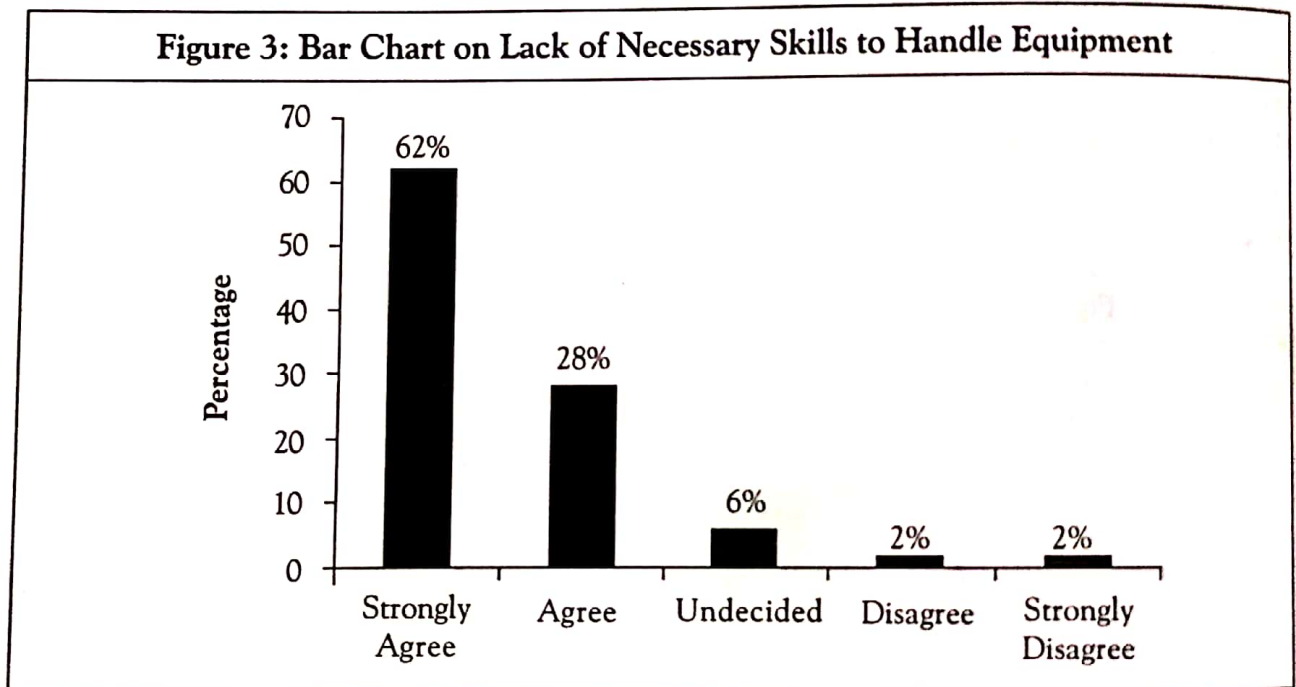
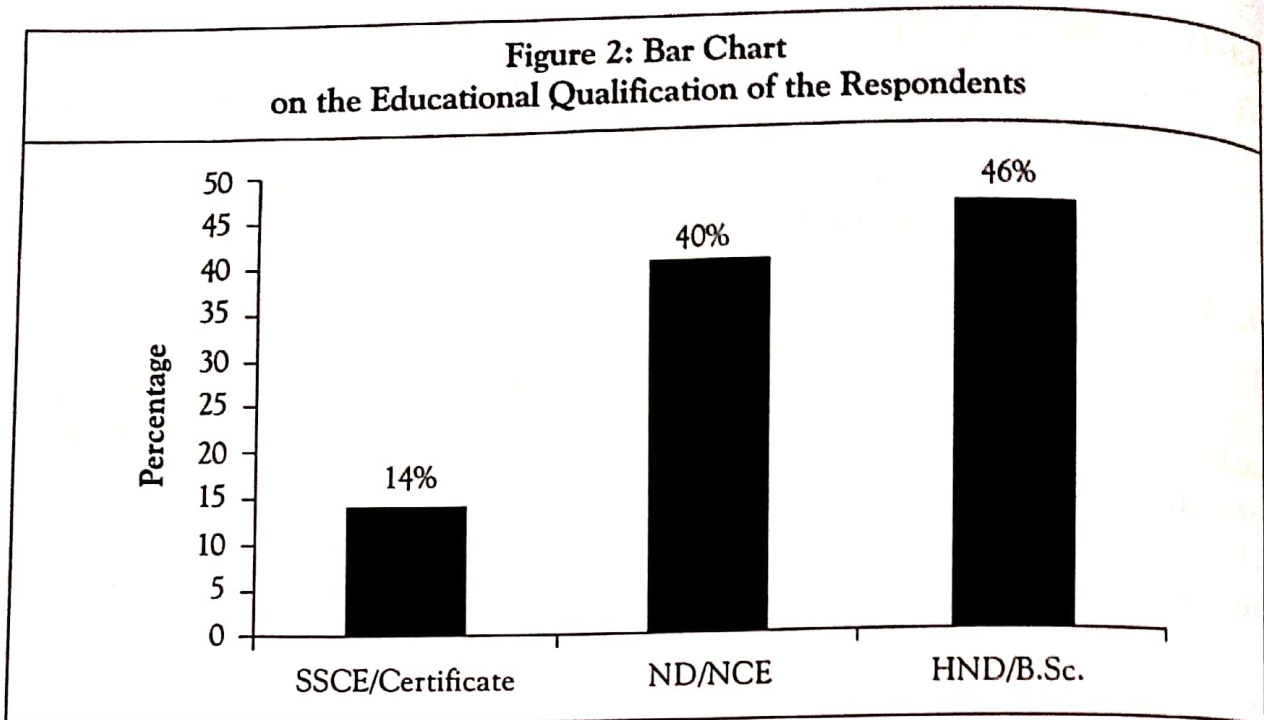


Figure 4 shows that secretaries not ICT compliant will lose their job (60% strongly agree).

Figure 5 shows that training institutions lack equipment for training secretaries (60% strongly agree).

Figure 6 shows that computers cannot perform the work of secretaries (78% strongly disagree).

Figure 7 shows that secretaries with just typing and shorthand skills are no longer needed (40% strongly disagree).

Figure 4: Bar Chart: Secretaries Not ICT-Compliant Will Lose Their Jobs

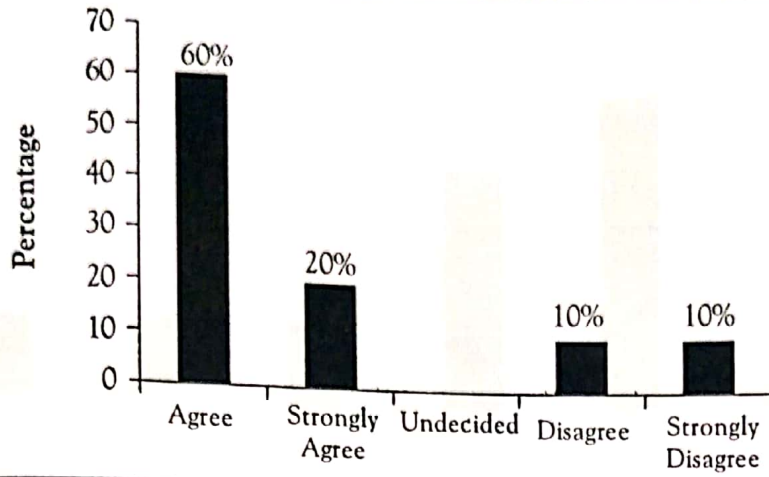


Figure 5: Bar Chart: Training Institutions Lack Modern Equipment for Training Secretaries

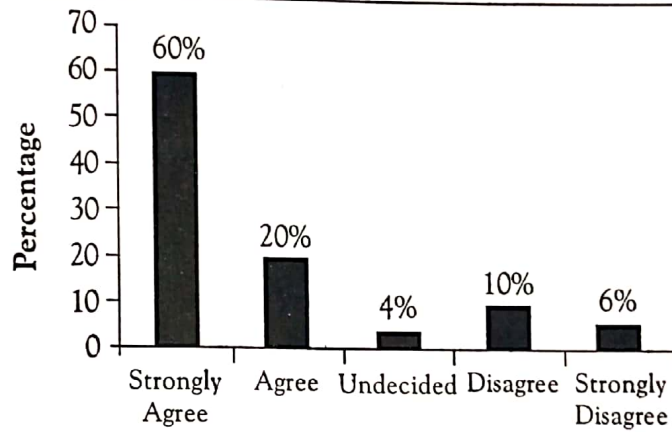


Figure 6: Bar Chart: Computers Can Perform the Work of Secretaries

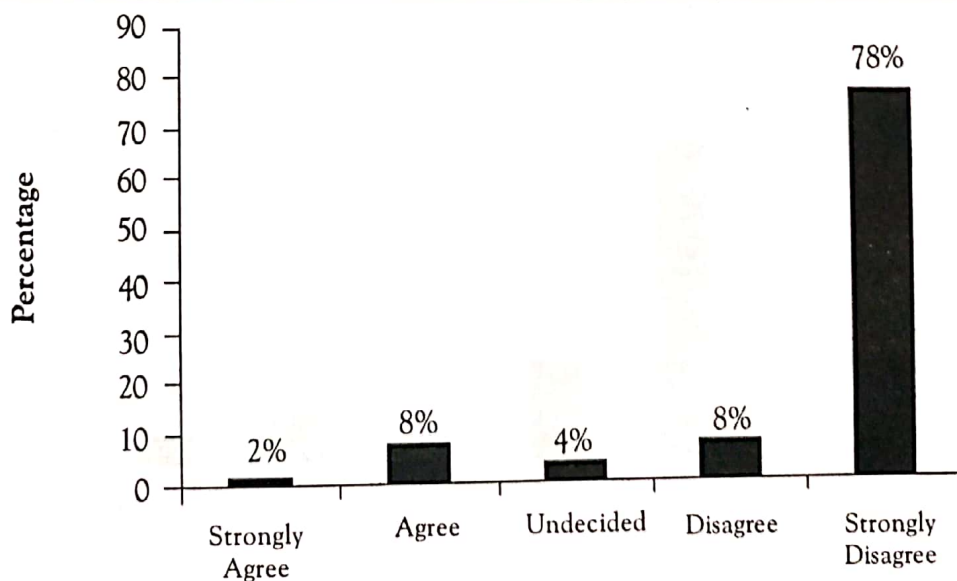


Figure 7: Bar Chart: Just Typing and Shorthand Skills Are No Longer Needed

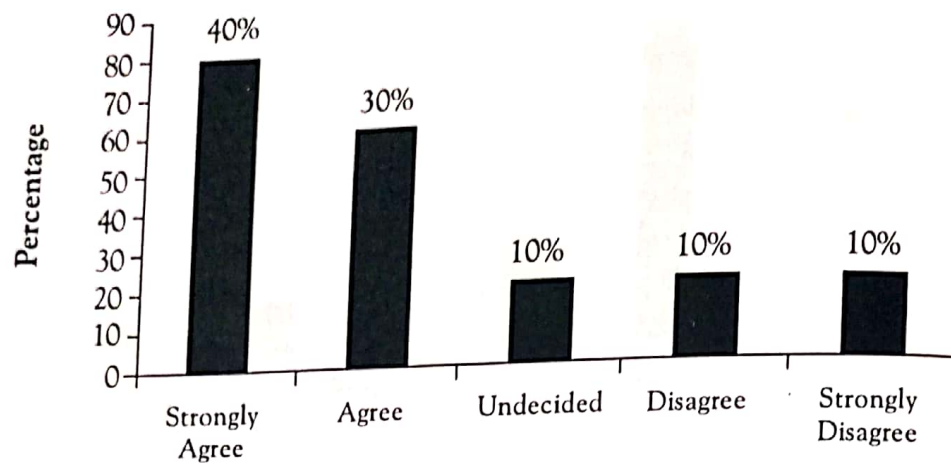


Figure 8 shows that inadequate power supply frustrate work of secretaries (60% strongly agree).

Figure 9 shows that subjects in schools are not up-to-date with ICT progression (60% strongly agree).

Figure 10 shows that most secretaries cannot use word processing software (60% strongly agree).

The data in Figure 11 shows that most secretaries cannot send e-mail messages (68% strongly agree).

Figure 12 shows that training institutions lack equipment for training secretaries (60% strongly agree).

Figure 8: Bar Chart: Inadequate Power Supply Frustrates the Work of Secretaries

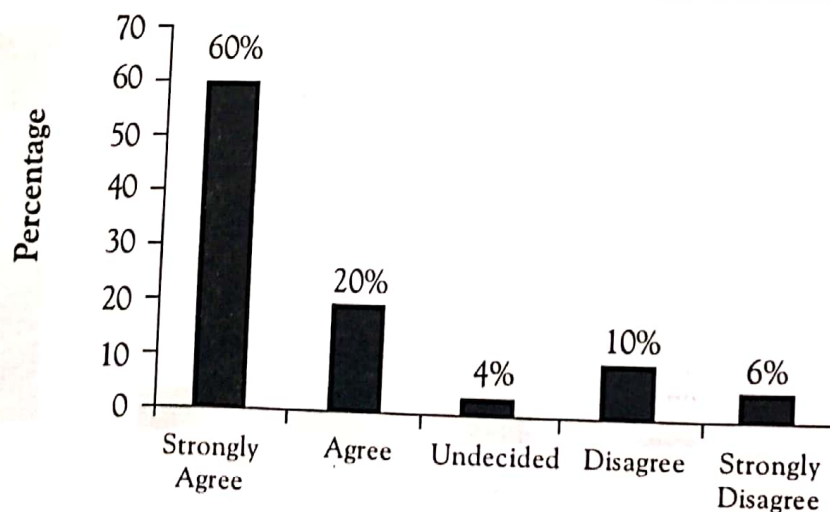


Figure 9: Bar Chart: Subjects in Schools Are Not Up-to-Date with ICT Progression

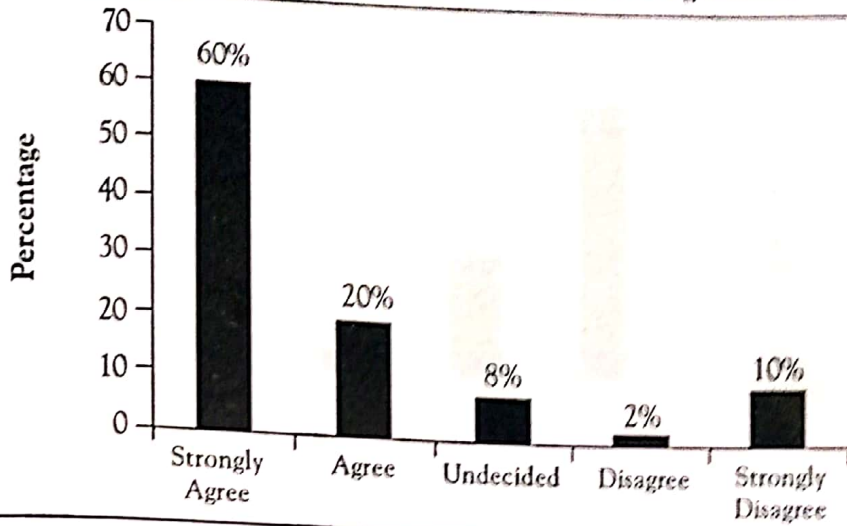


Figure 10: Bar Chart: Most Secretaries Cannot Use Word Processing Software

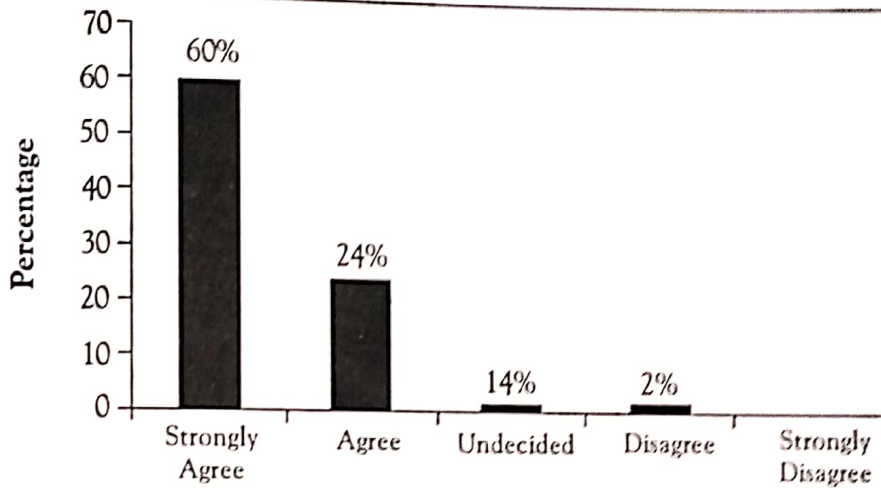


Figure 11: Bar Chart: Most Secretaries Cannot Send E-Mail Messages

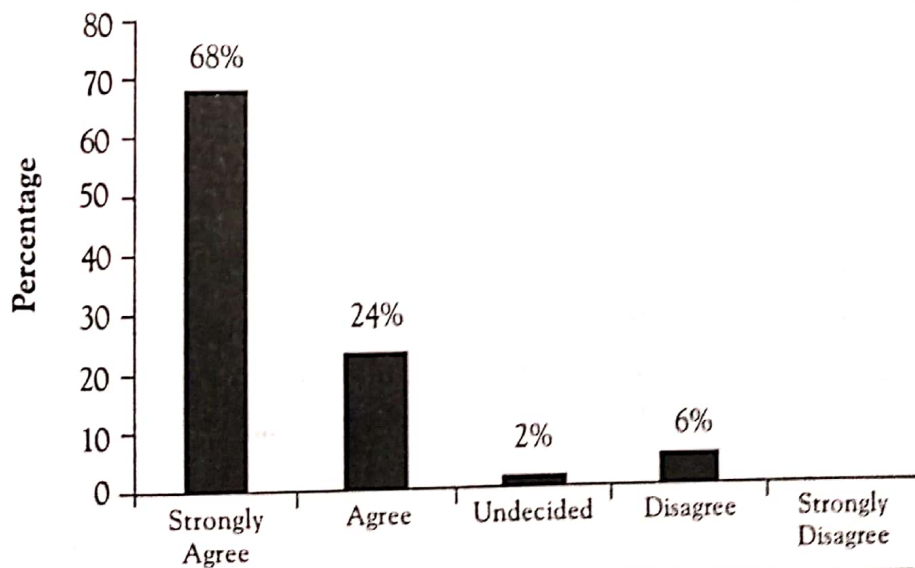
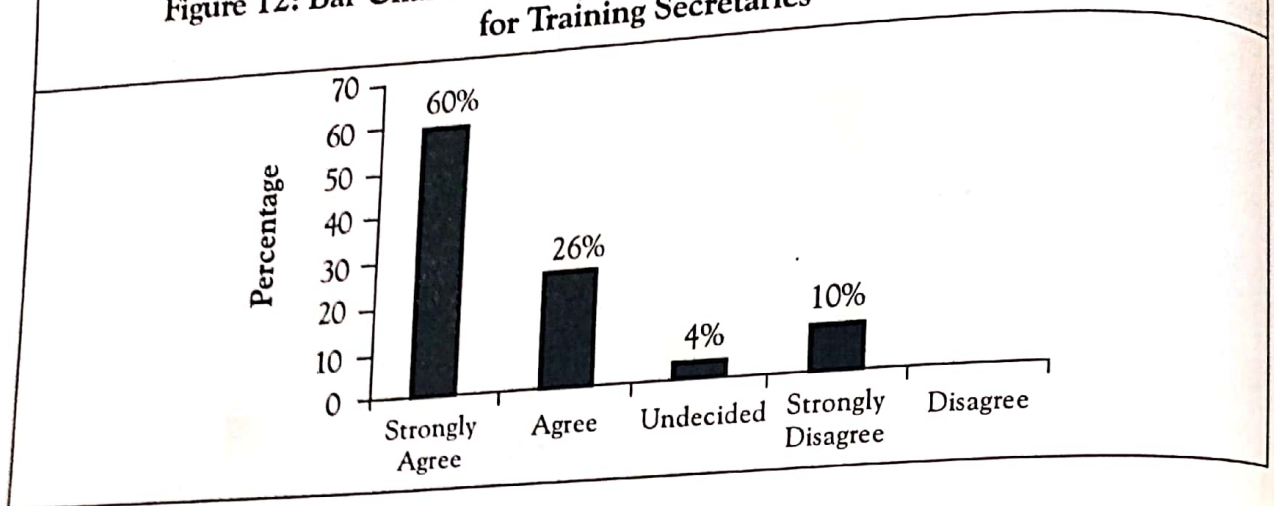


Figure 12: Bar Chart: Training Institutions Lack Modern Equipment for Training Secretaries



5. Discussion

The findings in Figures 3 to 12 indicate that most secretaries lack the necessary skills to handle modern office equipment. Most practicing secretaries today are trained under the old system where emphasis is placed on shorthand and typewriting as against the demand of today's modern office. This is because most training institutions do not possess modern ICT equipment and technical know-how for training of secretaries coupled with lack of teaching ICT-related courses in schools.

It was confirmed from the responses that most secretaries cannot use word processing software, Internet and send messages through e-mail. Other challenges posed by ICT to secretaries, such as weather conditions, inadequate power supply and short lifespan of electronic equipment, were confirmed. However, the assertion that computers can perform the work of secretaries thereby displacing them was not accepted.

Conclusion

From the analysis of the data, it was inferred that the numerous challenges posed by ICT to secretaries include lack of necessary ICT skills and that those with just typing and shorthand skills may lose their jobs. Other challenges include lack of up-to-date ICT equipment, no ICT courses available in the school curriculum, inadequate power supply, and weather conditions that affect electronic equipment.

In the course of the study the researcher administered a questionnaire to practicing secretaries in the Federal Polytechnic Bida, Niger State, Nigeria, in order to collect data for the research. It was established that most secretaries lack the necessary skills to handle the new information and technology equipment as a result of inadequate ICT course subjects taught in schools where they were trained.

Secretaries with just typing and shorthand skills cannot cope in any modern automated office and may likely lose their jobs. Most training institutions responsible for the training of secretaries lack necessary training equipment in this regard. Most

establishments are still using obsolete equipment. It was also established that inadequate power supply frustrates the work of secretaries.

Contrary to the opinion that computers can perform the work of secretaries, it was actually established that computers cannot perform the work of secretaries or replace them no matter how sophisticated they may be. Rather ICT provides additional career opportunities for secretaries and the ones with ICT skills are in high demand. ICT enriches the job performance of secretaries in several ways.

Recommendations

Based on the findings and the conclusions drawn from the results of the data collected, the following recommendations are made:

1. Secretaries need to be sent on training and retraining in new IT skills in order to be relevant in this new millennium. Alternatively, secretaries could make personal effort to receive relevant training so as to acquire all necessary skills in ICT.
2. The bodies responsible for the designing of the secretarial studies program should make effort to review and widen the secretarial studies curriculum to include ICT. The recent move by National Board for Technical Education (NBTE) to transform secretarial studies curriculum to Office Technology and Management is worth emulating.
3. The erstwhile secretarial studies teachers should be retrained to be ICT-compliant.
4. Secretaries in the Federal Polytechnic Bida and all other practicing secretaries are advised to always attend workshops and conferences on ICT so that they gain more knowledge on its operators.
5. Organizations including Federal Polytechnic Bida are also advised to acquire up-to-date ICT equipment to facilitate the work of secretaries. Also, institutions responsible for training of secretaries should make effort to acquire up-to-date ICT equipment for the training of secretaries; they also need to acquire standby generators in case of power shutdown. Ⓢ

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