

TITLE PAGE

**EFFECT OF MODERN OFFICE TECHNOLOGY ON THE PERFORMANCE OF OFFICE
PROFESSIONALS IN SELECTED ORGANIZATION IN KADUNA METROPOLIS**

BY

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**BEING A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF OFFICE
TECHNOLOGY AND MANAGEMENT, COLLEGE OF BUSINESS AND MANAGEMENT
STUDIES**

**IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF
NATIONAL DIPLOMA IN OFFICE TECHNOLOGY AND MANAGEMENT STUDIES,
COLLEGE OF BUSINESS AND MANAGEMENT STUDIES,
KADUNA POLYTECHNIC**

JULY, 2022

DECLARATION

This research project is an original work under the guidance and supervision of Mrs. Lois Williams Samaila of the Department of Office Technology and Management Studies, Kaduna Polytechnic, and has not been presented to any other institution for the award of Higher National Diploma (HND). All authors whose works have been referred to in this project have been duly acknowledged.

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APPROVAL PAGE

This is to certify that this project has been read and approved as meeting the necessary requirements in partial fulfillment of the requirements for the award of Higher National Diploma (HND) by the Department of Office Technology and Management, College of Business and Management Studies (CBMS), Kaduna Polytechnic.

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DEDICATION

I dedicate this research work to God Almighty for his mercy and guidance althrough my academy and research work.

ACKNOWLEDGEMENT

First and foremost I wish to express our sincere gratitude to Almighty God for sparing our lives in the course of the program.

My special thanks goes to my supervisor, **Mrs. Lois Williams Samaila** for her timely supervision and guide throughout the research work may God bless you in your hard work. And also to Mrs. Jimoh for her guidance and support although these research work.

My profound gratitude goes to the head of the Department (HOD) Mrs. Mary N. Okonkwo and my lecturers, Mr. Nte, Mrs. Betty Nwokocha, Mrs. T.L Ruwaan, Dr. Victor Ojetokun, Mrs. Sarah Balami, Haj. Hadiza Musa, Mrs. Chidi, Mrs. C.A Aku, Haj. Aisha Musa, Mrs. Esther Matthew, Mr. Barry Omale, and all the non-academic staff's of the department for their immense contributions towards the success of my academic session in the Department. May Almighty God Bless you all

My special thanks goes to my mum Evangelist Mrs. Felicia David Efena for her love, support, prayers and contribution throughout my studies and spiritual life. And special thanks to my siblings Mr. Nathan Anthony, Miss Forgiveness Anthony, Enoch Anthony, Comfort Anthony, Confidence Anthony, Justice Anthony and also to my godfather Mr. Usman Kamardeen, and also special thanks to Mr. Emmanuel Rume Mayiko, Mallam Ibrahim, Mr. Victor Osaze Eke and Mr. Mike Oshadami for their encouragement, love and support.

Special thank to all my course mate for their love, support, encouragement and prayers throughout my academic life in the institution. Thanks you all.

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ABSTRACT

The purpose of this study was to investigate the “Effect of Modern Office Technology on the Performance of Office professionals in Selected organization in Kaduna Metropolis” Office Technology is extremely important because it help facilitate flow of information within an organization. For instance, through teleconferencing, different individuals from different departments or branches can communicate easily without travelling long distances for meetings. The study used four objective in carrying out the research which include finding out the types of modern office equipment used in the organization, determine whether modern office machines that enhance the effectiveness of office professionals in their work. This study was be conducted in four selected organizations within Kaduna metropolis, namely; Nigeria Breweries, Sabon Yelwa Microfinance bank, Liberty radio and television, Kaduna Refinery Petro-chemical (KRPC). The sample size used by the researcher was ninety five (95). The Simple Random Sampling Techniques was also used to select respondents for the study. This is to ensure that every respondents stand an equal chance of been selected for the study. The adequate office technology motivate office professionals to put in more effort and the inadequate ones hinders the inflow of transaction in the organization, therefore, organization should see that their equipment are always adequate and they should guide against any measures that will lead to its incapability. The adequate office technology, motivate office professionals to put in more effort and the inadequate ones hinders the inflow of transaction in the organization, therefore, organization should see that their equipment are always adequate and they should guide against any measures that will lead to its incapability.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

For decades now, fast changes have been taking place in all facets of human life including the office environment. This is as a result of technological advancement. Every office in today's business world, be it government, industry or other human endeavours, require facts and accurate information for quick decision-making.

The office worker, including the secretary, expects certain support from the organization into which he/she is employed. This support can be technological (machines and equipment) and human. In offices of past, manager's dictated memos and letters and secretaries typed them. Most recently, business have developed word processing centers and relied on personal computers and even electronic mail in an effort to lessen the need for secretarial support and make the employee-secretary very productive (Osuala, 2014).

There are wide range of office machines and equipment which now enable secretaries to improve their performances. Such new machines take the form of electronic typewriters that have replaced the manual ones. Word processors with multi-purpose facilities, computers and other sophisticated office machines and equipment are now provided by employers. Some of the physical equipment used by secretaries includes computer communication equipment and electronic pocket organizers (Lucas, 2010). New technological equipment that has altered the procedures and technique for office functions include the computers, electronic mail/commerce, voice mail, and the Internet.

Several changes have taken place in private and public offices as regard the roles and functions of the secretary. The type of machines that were using to produce, duplicate and store information has undergone a great transformation to cope with the fast growing world of

technology. The success of any organization relies much on the secretary whose role though supportive is critical to the achievement of organizational goals and objectives. In today's organizations one of the things that make organizations unique is the use of modern technological gadgets. Both internal and external forces such as market competition, consumer behaviour, technology and quality management are the drivers of organizational change. In today's business world, every office requires facts and accurate information for quick decision making (Akpomi and Ordu, 2013). In Modern Office Technology the role of the office professional is crucial in the life or progress of an organization hence, needs some technological and human backing from the work place. The effective performance of the Professional Secretary depends upon the office equipment, knowledge and skills, of Professional Office Professionals. The skill level and functioning of the traditional secretary involve greater physical and mental ability. The introduction of modern technologies and programmes has lessened the onerous tasks for the modern office technology. These range from production, reproduction, storage and retrieval among others. With this advancement of technology, the use of the computer and software programmes facilitates the work of the professional. These include the use of machines such as printer, fax, pen drive, cell phones, photo copier, telex and internet. These requisite knowledge and skills make the position of the secretary rather challenging. With the improvement in technology and recent development in office, it is envisaged that the work of the office professionals will be easier. However, these new developments brought by technological challenges require even more knowledge and skills beyond being a professional secretary. For the office professionals to be abreast with the changing times, face the challenges and overcome the old ways of doing things she or he needs training requirements in recent times to help meet organizational objectives.

Information technology have affected many professions in recent times. The roles of office professionals have been turned around by technology. It has provided the tools that shift the effect of office professionals from that of information recorders to business strategists (Adedoyin, 2014; Appah and Emeh, 2011 and Jaiyeola, 2017). Several other authors are of the view that the office professionals have to be well equipped to meet the present challenges of a modern office. There are conclusions by experts in the secretarial profession that there need to be changes that will reshape the office (Boladele, 2012; Onifade, 2019; Igbinedion, 2010).

As opined by Nwaokwa and Okoli (2012), many office professional lack the communication technology skills required in the various of faces and this has greatly affected their performance.

The impact of office automation is to increase the organizational productivity by redefining the office work, improve the quality and accuracy of output. For an office professionals, office automation reduces the stress of role overload/identification; it affects the perceived status and job satisfaction and it has a significant influence on the workers' feelings towards the organizational goals.

1.2 Statement of the Problem

Cameron (2011), a very long time ago, commented that it takes up to 10 to 15 years between the introduction of new equipment in the market and its installation in small organizations. This is particularly peculiar to private business organizations in developing countries. In modern times, it is not uncommon to find some organizations still subjecting secretaries to the use of manual typewriters. When office professionals are not provided with efficient and effective office tools it is definitely bound to be low performance among the office professionals.

It is noted also that this manual method makes it impossible for offices to get rid of some old personal files which would have been stored in the computer and help in creating spaces in the office.

The effects of these changes on the performance of office professional in the office is the ability to cope, job security, relevance to the office work for which is employed and moreover, the training which is to prepare to meet the challenges of over-changing work environment.

1.3 Purpose of the Study

The main purpose of the study is to identify the effect of modern office technology on the performance of office professionals; the researchers intend to achieve this through the following specific purpose

- i. To identify the effect being confronted by office professionals in the course of discharging their duties.
- ii. To find out the types of modern office equipment used in the organization.
- iii. To determine whether modern office machines that enhance the effectiveness of office professionals in their work.
- iv. To ascertain the role which modern technologies play in helping the organization to achieve set goals.

1.4 Research Questions

The following questions were formulated

- i. What are the effect being confronted by office professionals in the course of discharging their duties?
- ii. What are the types of modern office equipment used in the organization?

- iii. What are the modern office machines that enhance the effectiveness of office professionals in their work?
- iv. What are the role which modern technologies play in helping the organization to achieve set goals?

1.5 Significance of the Study

This study when completed would be of great benefit to the organization, office professionals, students of office technology and future researchers:

Organization: This student would be very important to organizations under study and then generally to all other modern technology. This is due to the fact that good office professionals increases output and enhances the achievement of the set goals.

It is also hope that organizations would know through this study, the ability of office professionals as well as the indispensable role they play in office technology.

Office Professionals: They are expected to benefit by enjoying better conditions of services as a result of the findings of the study that could be implement in their organization. So also, the practicing office professionals will be well informed of the inevitable qualities of office professionals in organizations, the scope of control they should be allowed to exercise and therefore, discharge their duties effectively without fear of favour.

Student of Office Technology Managemet: This research work will be of benefit to the student of office technology and management, in other to enable them to know the use of office technology and some of the technological equipment to be used.

Future Researchers: this project will serve as a guide and source of information for further researchers on this subject matter on other related topics.

1.6 Scope of the Study

This study is restricted to the modern office technology on the performance of office professionals, Kaduna Metropolis. It will focus on the extent of the effect being confronted by office professional in the course of discharging their duties, determine whether modern office machines enhance the effectiveness of office professionals, the role which modern technologies play in helping the organization to achieve set goals.

The study is also limited to the effect of modern office technology on the performance of office professionals in Nigeria Breweries, Kakuri, Kaduna State, Sabon Yelwa Microfinance Bank, Kaduna State, Liberty Radio and Television Barnawa Kaduna State and Kaduna Refinery Petro-chemical Yakowa Road, Kaduna State.

1.7 Limitation of the Study

1.8 Definition of Terms

The following terms used in presenting report of this study are explained below:-

Office:- Office is used in this work as a place where business activities are carried out. It can also be a room or building where clerical processes or duties are carried out.

- Modern:-** Anything of present or recent but Oxford Advanced Learner's Dictionary says that modern is up to date, methods and ideas of doing things.
- Office Technology:-** Office Technology is used of modern equipment to do work, which are previously done by man manually.
- Office Professionals:** Is an assistant to an executive possessing mastery of office skills and ability to assume responsibility without direct supervision

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter presents an exploration of the various perspectives other authors on the subject matter via journal, text books, newspaper and others:

- 2.1 Conceptual framework
 - Concept of an Office Professionals
 - Concept of an Office Technology
- 2.2 The Effect of Modern Office Technology on Office Professionals Performance
- 2.3 Challenges Office Professionals Encounter in using Modern Office Technology
- 2.4 Types of Modern Office Technology used in the Organization
- 2.5 Ways in which Office Professional can maximize the use of Modern Office Technology in the Organization
- 2.6 Summary of the Review

2.1 Conceptual Framework

Concept of Office Professionals

An office professional is a professional not only because of the knowledge acquired, but because of being a professional implies competence, pride in one's work and a dedication to excellence, as opined by Webster (2013). The office professionals, sometimes known as administrative assistance, administrative office professionals and private office professionals or by other several titles, is a professionals with each of these qualities. Moreover, office professionals is an important member of the member team, responsible not only for carrying executives wishes but also for helping to maintain a well-organized and efficient office. Office

technology and computers have enriched the types of work of that office professionals do and changes are continuing at a rapid pace. Today's office professionals has witnessed tremendous change in scope, training and advancement. This is the function and role of an office professional in the office have shifted to managerial and host of others.

On this, Whitehead (2014), states that office professionals today are power behind the "throne" in many executive situations. Behind every successful executive, a first call office professional act as a pillar to the executive; an alter Ego or ones other self. Office person who accommodates all professionals, occupations and trades. The type of today's training makes him/her versatile and enables him/her to function readily in all aspect of human endeavor.

As commerce and trade expanded, people of wealth and power needed office professionals to handle correspondence on private and confidential matters, most particularly matters of state. The inception of information technology as it now assumes has brought with it dramatic changes in organization settings, school curriculum and of course chain reactions. One of those reactions has been in the office professional profession curriculum over the validity of shorthand in the information technology age. These reactions, which hinged on the validity of shorthand, have culminated into present day debate for the removal of shorthand and Office Professional practice entirely.

Omega (2010), buttress this fact that, the rate of failure recorded in recent times in shorthand in the information technology age, but the truth is that we cannot demand shorthand to satisfy selfish desires. The answer to these questions have far-reaching implications, however to draw a logical conclusion from the controversies that have permitted the Office Professional profession, it is imperative to say that is has no doubt contributed immensely to the declining rate of employment of Office Professional service in the banking industries today.

Concept of Office Information

Office technology refers to the machines used for the efficiency of workers in the office. Office technology free workers from many of the routines and time-consuming tasks done manually. These are categorized into three accounting, Secretarial.

General Office Machines

These are generally used in the office. They include computers, fax, offset and laminating machines. Computer processes data and it is most commonly used in offices.

There are desktop laptop and series of other forms of computers in offices today. The fax or facsimile facilitates the dissemination of information and diagrams over telephone wires through facsimile telegraphy. Documents are scanned by a beam of light and an identical image is reproduced on the other fax machine operated by another subscriber at the other end. The offset into is more or printing machine. Is good for producing staff magazine, inter-office memoranda, etc. The laminating machine is used protecting documents against moisture, dirt, creasing and tampering by the use of cellophane. This is done through the heat process. The machine seals the document automatically for durability.

2.2 Effect of Modern Office Technology on Office Professionals

In discussing the effect of modern office technology on the office professionals performance in organizations; two factors are to be recognized. Technological growth and organizational structure. Organization here does not mean only structure but includes aspects of interactions between people and machines in achieving set organizational goals. It is said that successes of any person or organization depends largely on information available to a human person and the constant modification of modern office

technology that is fully up-dated with modern information.

This ascertain brings us to the purpose of an office which includes the following: Administration, clerical work, money handling information office systems which is an full embodiment of secretarial operations. Office as a mini-social system according to farber and Barr (2015) plays important roles in defining responsibilities. For the aforementioned reasons the office professionals must be available to organize and run the office completely. Here the office professionals is seen as an executive assistant who has a mastery of office/organizational skills. It has to be familiar with the manipulation of the modern office technology which is made to enhance his/her performance.

Office technology provides increased productivity through improved access to data, faster responses to customer demands and faster decision makings. The invention of modern office technology were necessitated as a result of the growth in large scale enterprises and also as a technological breakthrough. The office therefore relies much on sophisticated office technology in order to cope with the ever-increasing activities in the organizations. Which is one of the largest quoted company in Nigeria stock market has successive secretarial functions. This company started in Nigeria in 1946 producing star larger and has witnessed a lot of human and technological transformations. In their policies to keep a healthy work force in personnel and machines they have taken their secretarial operations to greater heights. This they were able to achieve through the introduction of any technology that will enhance the job of their office professionals and also customer service satisfaction. Nigeria Breweries believe in breaking into new areas.

They contend so much with the tomorrow of their business. Strategically, actions, planning and implementation to ensure that tomorrow is achieved, is futuristic in their

business approach made possible by the able and vision driven leadership of their past and immediate Directors/ Chief executives that pilots the affairs of the business in conjunction with Heineken international. Recently a multi-billion Naira ultra- modern brewery has been cited in Kaduna state with the slogan that it is a world class investment that can complete with another out-fit in any part of the world is modern office and production and delivery technology. The introduction of modern office technology in organization mainly the computer in every office of the company also shows that the secretarial performance goes with the acquisition of these modern technology's.

It seems however, that although the higher levels of management might not make much direct use of modern office technology the office professionals will. This office technology for the secretarial is in providing the office professionals with a system that meets the real need identified as being important rather than the ones of typing and stenography that are thoughts to be important. As against the traditional office the modern office has a lot of activities to perform with the aid of modern technology. Nowadays, un-countable manufacturing industries have installed these technology's and the office professionals are present to manipulate them in discharging their duties efficiently and effectively.

2.3 Problems Office Professional Encounters in using Modern Office Technology

The importance of efficiency in job performance cannot be over- emphasized. A case for the pursuit of increased efficiency/productivity can be made simply by looking at the categories of office work, the size of the office work force and the impact of mechanization. The secretarial profession has witnessed a tremendous change in terms of technological advancement. Modern office technology has taken the toll of events with

the growing rate of scientific and technology which are used in manufacturing industries to facilitate office work and reduce labour costs. They include: electronic typewriters, fax machines, telephone, computers, dictating machines and recording machines etc.

Onifade (2010) confirmed that there is no doubt that these modern technologies have thrown some office professionals out of job and the trend will continue for some time. The innovations and inventions in computer and its facilities have made the office to reduce the number of office professionals. The jobs which the office professionals perform in the office and the errands they run have been taken over by the computer. The functions of the computer and its facilities which aided the reduction in the number of office professionals needed in the office as spelt out by Onifade (2010) are:

1. Information which is the most important ingredient of the office can be stored, processed and retrieved by the computer facilities.
2. It can be used to produce fast and accurate information.
3. It provides very cheap services.
4. Messages can be sent to many people simultaneously with the use of computer's internet.
5. Security of information is assured.
6. Time, effort and money are saved.
7. Stress is minimized.
8. You can purchase office items online.
9. You can book airline tickets and hotels online.
10. Space is saved as little or no paper is used in the office

An executive who does not know how to type may use either his voice or pen to produce his document. An office that has two or more office professionals can afford to sack one of them and keep just one of them. Looking at these functions, the office professionals is not mandated to go to the airport to book flight for his/her boss.

Many jobs which were hitherto performed by the office professionals are now performed by the computer but with the help of the office professionals herself or an operator - computer, left alone cannot do this. Technological changes have tremendously transformed the traditional role of office professionals in offices. The traditional roles which involve typewriting and taking shorthand dictation, answering of telephone calls and processing of mails have been greatly revolutionized. In recent times, modern office professionals are exposed to high technology such as the internet which simplifies duties and enhance knowledge and the performance of the office professionals.

2.4 Types of Modern Office Technology

The advancements in modern technology allowed people to communicate with each other no matter where they are in the world, regardless of the time zone differences. Apart from simply keeping in touch, this paved the way for an efficient and immediate dissemination of necessary information and updates that covers various topics. Hence, it is noteworthy to take a look into the modern office devices that revolutionized how people interconnect with each other.

Cellular Phones

Cellular phones are considered as the first mobile phones that entered the technological scene late in the 70s. Robert (2010). After the first cellular phone network

was launched in Japan, several other countries followed suit and not long after that, several people already own cellular phones that allow them to not only call other people, but also send text messages. Several cellular phones were also reinvented to offer certain games, much to the delight of the people using it.

Smartphones

Cellular phones were revolutionized into smartphones, which can be considered as a small computer that also functions as a telephone. Apart from allowing people to make calls and send messages, several apps, or applications can be installed on a smartphone, which permits people to send emails or surf the internet. (Shuaibu, 2009), There are also several devices that can be used with this modern phone such as Bluetooth earphones or speakers. The experts behind even scrutinized some of the coolest gadgets that you can use in conjunction with your smartphones such as a wireless and USB charger, a screen cleaner, as well as a Wi-Fi booster. The features of smartphones may vary from one manufacturer to another, with the camera and audio functionality often proving to be the distinction.

Tablets

Tablets are already considered as office devices because with a reliable internet connection, or with a certain data capacity, people can reach out to each other using their tablets. While the first types of tablets already appeared in the 80s, it wasn't until the first iPad was launched in 2010 wherein tablets were appreciated by the general public. iPads held a fair share of the market until Android tablets came into the picture. Tablets generally have similar features to a smartphone, and perhaps the most notable difference

between the two is the size of the device. With a tablet, people are able to initiate audio and video calls, as well as send messages through different apps and channels.

Laptops

Laptops are portable computers that may come in different weights and sizes. When laptops were first introduced in the market, they were often deemed as glorified calculators. Currently, modern laptops boast of the features of desktop computers with the added advantage of portability. There are several types of laptops that are intended to fit a specific purpose, such as for business needs, for gaming and entertainment purposes, for recording and music, as well as for personal use. Nevertheless, with a stable and reliable internet connection, people have the ability to get in touch with each other through different messaging software installed in their laptop computers. Apart from messaging services, people can also utilize email services and video conferencing through their laptops.

Personal Digital Assistant

Personal digital assistants or PDAs have similar functions as that of laptop computers. Odiava (2010), its features often include phone service, fax service, email and Internet connections. These are usually utilized by employers to equip their employees in instances wherein the use of laptop computers are not possible.

Virtual Assistants

The recent addition to the modern devices utilized for office would be virtual assistants. More and more people are now using virtual assistants such as Siri and Alexa to send text messages, emails, as well as phone calls through their smartphones,

especially when they have no means to do so or when it is inconvenient for them such as when they are driving on the road. In parallel to this, the recent years brought about the development of smart home assistants such as Amazon Echo or Google home, which can relatively do the same office functions if programmed to do so.

Thanks to various technological innovations that brought about modern office devices, allowing people to be connected no matter how geographically far they are from each other. Modern office devices allowed families to stay in touch even if there is a need for some members to live overseas. In the same manner, these technologically advanced devices also allow businesses to continuously operate their processes, allowing them to reach their customers regardless of geographical distance and time zone differences.

Computer

Everybody knows what a computer is. It can simply be defined as an accurate electronic device that performs calculations and processes information at great speed. Computers come in different sizes, shapes capacities, etc. We have desktops, laptops, and palmtops. The computer is used in medicine, engineering, architecture, education, . banking etc.

2.4.1 Office Professional Productivity

According to Baile (2013) productivity is often defined as a measurement of output relative to an input. At lower levels, various methods are used to track productivity performance and identify opportunities for productivity improvement, but there is still a wide gap between productivity measurement and managerial behavior, The output can be any outcome of the process, whether d product or service, while input factors consist of

any human and physical resources used in a process. It follows that, in order to increase productivity, the system must either produce more or better goods from the same resources, or the same goods from lower resources. Stated differently, productivity improvement refers to an increase in the ratio of the produced goods or services in relation to resources used. Productivity is closely related to the used and availability of resources as well as to value creation, this means that company productivity is reduced if resources are not properly used or if there is a lack of resources.

Allen et al. view productivity measurement as the ratio of the output and input resources of a productive system. The intent is to come up with a quantified monitoring index. The goal of productivity measuring is productivity improvement, which involves increasing effectiveness and a better use of available resources. While productivity can be given the sort of shorthand definition as the ratio between output and input, what productivity really is as well as how it can be measured has always provoked a great deal of controversy among experts. The essence, it can be said that the measurement of productivity is only simple conceptually. In practice, however, both measurements of outputs and inputs involve aggregation problems, and this problem alone has situated productivity measurement in the realm of complexity.

The concept of secretarial productivity can be seen in the level of performance of office professionals in relation to their tasks. This study advocates that the level of modern office professional's performance is far greater than those of the previous generation. A study conducted by study mode, web researcher concluded that the factors that affected the performance include the following.

- Equal pay for all employees according to the level of responsibility and work done
- Office professionals be taken for further training and only employ those the enough skills and qualifications.
- Working relations be encouraged at all levels
- Physical working environment be improved and technology be purchased
- The use of modern technology

The focus of this study is to examine the relationships between office professional's productivity and their use of modern technology. A number of study present successful experiences of how the introduction of modern office technologies led to tremendous benefits.

2.5 Ways in which Office Professionals can Maximize the use of Modern Office Technology in the Organization

Organizations are often able to perform all their office tasks from simple desktops or laptops. However, as the business grows or expands, the scales and number of tasks needed to keep the business running increases exponentially.

In the recent years, the use of modern technology has solve increasing tasks has increased exponentially. This research discusses the importance of office automation system. According to John Williams (2012) stated that office technology is extremely important because it help facilitate flow of information within an organization. For instance, through teleconferencing, different individuals from different departments or

branches can communicate easily without travelling long distances for meetings.

Information Storage

The first area within office technology is information storage which is usually considered to include office records and other primary office forms and documents. Data applications involve the capture and editing of files, images, or spreadsheets. Word processing and desktop presentation packages accommodate raw textual and graphical data, while spreadsheet applications provide users with the capacity to engage in the easy manipulation and output of numbers. Image applications allow the capture and editing of visual images. Harrison (2014).

Text handling software and systems cover the whole field of word processing and desktop publishing. Word processing, the most basic and common office automation activity, is the inputting (usually via keyboard) and manipulation of text on a computer. Today's commercial word processing applications provide users with a sophisticated set of commands to format, edit, and print text documents. One of the more popular features of word processing packages is its preformatted document templates. Templates automatically set up such things as font size, paragraph styles, headers and footers, and page numbers so that the user does not have to reset document characteristics every time he or she creates a new record.

Desktop publishing adds another dimension to text manipulation. By combining the features of a word processor with advanced page design and layout features, desktop publishing packages have emerged as valuable tools in the creation of newsletters, brochures, and other documents that combine text and photographs, charts, drawings and

other graphic images.

According to Lyndsay (2010) stated that, Image handling software and systems are another facet of office automation. Examples of visual information include pictures of documents, photographs, and graphics such as tables and charts. These images are converted into digital files, which cannot be edited the same way that text files can. In a word processor or desktop publishing application, each word or character is treated individually. In an imaging system, the entire picture or document is treated as one whole object. One of the most popular uses of computerized images is in corporate presentations or speeches. Presentation software packages simplify the creation of multimedia presentations that use computer video, images, sound, and text in an integrated information package.

Spreadsheet programs allow the manipulation of numeric data. Early popular spreadsheet programs such as VisiCalc and Lotus 123 greatly simplified common business financial recordkeeping. Particularly useful among the many spreadsheet options is the ability to use variables in pro-forma statements. The pro-forma option allows the user to change a variable and have a complex formula automatically recalculated based on the new numbers. Many businesses use spreadsheets for financial management, financial projection, and accounting.

Data Exchange

While data storage and manipulation is one component of an office automation system, the exchange of that information is another equally important component. Kokemuller (2011), Electronic transfer is a general application area that highlights the

exchange of information among multiple users. Electronic mail, voice mail, and facsimile are examples of electronic transfer applications. Systems that allow instantaneous or "real time" transfer of information (i.e., online" conversations via computer or audio exchange with video capture) are considered electronic sharing systems. Electronic sharing software illustrates the collaborative nature of many office automation systems.

According to Nwosu (2010), Office Technology systems that include the ability to electronically share information between more than one user simultaneously are sometimes referred to as groupware systems. One type of groupware is an electronic meeting system. Electronic meeting systems allow geographically dispersed participants to exchange information in real time. Participants in such electronic meetings may be within the same office or building, or thousands of miles apart. Long-distance electronic sharing systems usually use a telephone line connection to transfer data, while sharing in the same often involves just a local area network of computers (no outside phone line is needed). The functional effectiveness of such electronic sharing systems has been one factor in the growth of telecommuting as an option for workers. Telecommuters work at home, maintaining their ties to the office via computer.

Electronic transfer software and systems allow for electronic transmission of office information. Electronic mail uses computer-based storage and a common set of network communication protocols to forward electronic messages from one user to another. Most of these systems allow users to relay electronic mail to more than one recipient, although they refer to this in an old-fashioned way as carbon copying or "cling." Electronic mail, or e-mail systems, provide security features, automatic messaging, and mail management systems like electronic folders or notebooks. Voice mail offers essentially the same applications, but for

telephones, not computers.

Other traditional office machines continue to undergo changes that improve their data exchange capacities as well. Digital copiers, for example, are increasingly multifunctional (with copying, printing, faxing, and scanning capabilities) and connectable to computer networks. Laptops, Personal Digital Assistants (PDAs), and Blackberries (wireless cell phone and PDA units) use wireless data transfer technologies to provide users with almost instant access to information stored on a company's computer networks and servers from just about anywhere within reach of a cell phone tower or wireless Internet transmitter.

2.6 Summary of Review

The chapter had dealt with literature review of different authors and writers related to the study. The review started with an explanation of the concept of office professionals the effect of modern office technology on office professionals performance such as; office technology were necessitated as a result of growth in large organization and technological back through, provides increased in productivity through improved access to data, faster responses to customer demands and faster decision making, office technology is extremely important because it help facilitate flow of information within an organization and office technology provides increase productivity thought improved access to data. Furthermore, the types of modern office technology in an organization are; computer, fax, internet, automatic answering machine, and validating machine.

Lastly, ways office professionals make maximal use of office technology are: modern office technology enables office professionals to produce mail able ok within record

time, with modern technology office professionals can attend to many callers simultaneously without problems, filing record keeping by office professionals has been simplified by modern technologies, office professionals find it easier to maintain machines and make follow up action and office professionals find it easier to schedule and manage the activities of their business with modern office technologies.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter makes deliberate attempt to outline procedures and methods that will be used to carry out the research under the following subheadings:

- 3.1 Research Design,
- 3.2 Area of the Study
- 3.3 Population of the Study
- 3.4 Sample Size and Sampling Techniques,
- 3.5 Method for Data Collection,
- 3.6 Administration and Collection of the Instrument
- 3.7 Validation of the Instrument
- 3.8 Data Analysis and Techniques

3.2 Research Design

The method that will be adopted in the research is survey research method. This includes gathering and analyzing information from the respondents. This is in line with Borden and Abbot, 2001

3.3 Area of Study

This study will be conducted in four selected organizations within Kaduna metropolis, namely; Nigeria Breweries, Sabonyelwa Microfinance bank, Liberty radio and television, Kaduna Refinery Petro-chemical (KRPC).

3.4 Population of the Study

The population for the study will be made up of 127 workers comprising executives and office professionals in the four selected organizations. A breakdown of the population is presented in table 3.1 below as obtained from the organizations under study.

Table 3.1: Distribution of population for the study

Total	Organization	Executive	Office professional	Total
1.	Nigeria Breweries	27	29	56
2.	Liberty Radio and Television	7	18	25
3.	Kaduna Refinery Petro-chemical (KRPC)	8	17	25
4.	Sabon Yelwa Microfinance Bank	7	14	21
	Total	49	78	127

3.5 Sample Size and Sampling Techniques

To determine the sample size the researcher intends to use Krejcie and Morgan (1970)

Table for determining sample size. Thus, the sample size is shown in the table below:

Table 3.2: Distribution of Sample Size

S/N	Organization	Executive	Office professional	Total
1.	Nigeria Breweries	20	22	42
2.	Liberty Radio and Television	5	13	18
3.	Kaduna Refinery Petro-chemical (KRPC)	7	13	20
4.	Sabon Yelwa Microfinance Bank	5	10	15
	Total	37	58	95

Based on the table above, the sample size that will be used by the researcher will be ninety five (95). The Simple Random Sampling Techniques will also be used to select respondents for the study. This is to ensure that every respondents stand an equal chance of being selected for the study.

3.6 Instrument for Data Collection

The instrument to be used to collect data will be questionnaire. The questionnaire will contain 5 sections. Section 'A' will seek response on personal data of the respondent. Section 'B' will elicit response on the effect of modern office technology on office professionals performance in the organization. Section 'C' will handle the challenges office professionals encounter in using modern office technology in organization. Section 'D' will deal with the various types of modern office technology used in the organization. Section 'E' will elicit response on ways in which office professionals can maximize the use of modern office technology in the organization.

3.7 Validation of Instrument

Draft copy of the questionnaire will be subjected to validation by the project supervisor and two other lecturers from the department of Office Technology and Management. All observations and amendments will be effected before administrating the questionnaire.

3.8 Administration of the Instrument

The researcher will administer the questionnaire to the respondents personally. The questionnaires will be distributed to all respondents and they will be given at most, five working days to complete before collection for analysis.

3.9 Data Analysis Technique

The data collected will be analyzed using frequency distribution tables and arithmetic mean. The mean is computed using the following formula.

\bar{X} =

\bar{X} = mean

Σ = Sigma, summation

F = the frequency for each variable

Fx = Frequency of variable multiplied by the value of scale

Σfx = Summation or frequency multiplied by x (value of each scale)

Cut off point for four point scale =2.5 (cut-off point)

Where the mean calculated is equal to or exceeds 2.5 (the mean of the 4 point scale), the item is accepted. On the other hand, where the calculated mean is less than 2.5, the item is rejected. The acronyms for 4 point scales are:

Strongly Agreed, SA = 4;

Agreed, A = 3;

Strongly Disagreed SD = 2

Disagreed, D = 1.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

This chapter deals with the presentation, analysis and interpretation of data and information which were collected during field work. A total number of 95 questionnaires were distributed to the respondents out of which 90 were completed and returned and these were used for the analysis and interpretation of data.

4.1 Data Interpretation and Analysis

This chapter shows the data presentation from the study

Research Question 1: What are the effect of modern technology on office professional performance in the organization?

Table 4.1: Respondents view on the effects of modern technology on office professionals performance in the organization

S/N	VARIABLES	SA	A	D	SD	Efx	X	REMARK
1.	Data management is one of the major components of office technology system that offers strategic advantages by simplifying the management of stored data and information.	48	23	7	10	285	3.1	Agreed
2.	Exchange of stored or manipulated data and information is also an important component of an office automation system. Sending files or exchanging data or information between one or more than one member of an organization has become possible with an electronic transfer application.	51	19	14	6	295	3.2	Agreed
3.	Office technology empowers staff to save both time and money. It simplifies and automates those complex tasks, which earlier required a dedicated resource and a great amount of time.	70	20	-	-	340	3.7	Agreed
4.	Office technology does not need to invest much on hiring new resources for taking care of those tasks, which can be easily executed using an office automation system.	58	22	-	10	318	3.5	Agreed
5.	Easy saving of money by automating various complex business processes. With saving large on the overall expenditure and investment on other resources.	46	24	11	9	287	3.1	Agreed

Source: Fieldwork: 2022

N = 90

Cut-off point = 2.5

Interpretation

The result on the table 4.1 above shows that variable 1,2,3,4 and 5 with a mean score of 3.1, 3.2, 3.7, 3.5 and 3.1 respectively which are all greater than the cut-off point 2.5 indicates that respondents accepted that data management is one of the major components of office technology system that offers strategic advantages by simplifying the management of stored data and information, exchange of stored or manipulated data and information is also an important component of an office Technology system. Sending files or exchanging data or information between one or more than one member of an organization has become possible with an electronic transfer application, Office Technology empowers staff to save both time and money. It simplifies and automates those complex tasks, which earlier required a dedicated resource and a great amount of time and easy saving of money by automating various complex business processes. With saving large on the overall expenditure and investment on other resources.

Research Question 2: What is the challenges offices professional encounter in using those technology?

Table 4.2: Respondents view on the challenges office professional encounter in using office technology.

S/N	VARIABLES	SA	A	D	SD	Efx	X	REMARK
6.	Poorly designed work areas, resulting in discomfort or health hazards.	40	35	15	10	305	3.3	Agreed
7.	Time factor has being a challenges in the using of office automation	61	24	5	-	.326	3.6	Agreed
8.	Stressful work environments	70	10		10	320	3.5	Agreed
9.	Modern technologies have thrown some office professionals out of job and the trend will continue for some time.	73	17	-	-	343	3.8	Agreed
10.	Low job satisfaction results, absenteeism and turnover	28	32	10	20	248	2.7	Agreed
11.	Technological changes have tremendously transformed the traditional role of office professionals in the office	39	30	11	10	278	3.0	Agreed

Source: Fieldwork, 2022

N = 90

Cut-off Point 2.5

The result on the table 4.2 above shows that variable 6,7,8,9,10 and 11 with a mean score of 3.3, 3.6, 3.5, 3.8, 2.7 and 3.0 respectively which shows that three variable are accepted and two are rejected and all greater than the cut-off point 2.5 indicates that respondents accepted that Poorly designed work areas, resulting in discomfort or health hazards, time factor has being a challenges in the using of office automation, Stressful work environments, Modern technologies have thrown some office, professionals out of job and the trend will continue for some time, Low job satisfaction results, absenteeism and turnover, Excessive monitoring of works, Technological changes have tremendously transformed the traditional role of office professionals in the office.

Research Question 3: What are the types of office automation used in the organization?

Table 4.3: Respondent views on the types of office automation used in the organization.

S/N	VARIABLES	SA	A	D	SD	Efx	X	REMARK
12.	Cellular phones are considered as the first mobile phones that entered the technological scene.	70	30	-	-	370	4.1	Agreed
13.	A facsimile or facsimile transmission machine (FAX) scans a document containing both text and graphics and sends it as electronic signals over ordinary telephone lines to a receiving	49	21	10	10	289	3.2	Agreed
14.	Fax machine	41	31	19	9	304	3.3	Agreed
15.	Voice mail is a sophisticated telephone answering machine. It digitizes incoming voice messages and stores them on disk.	61	16	13	-	318	3.5	Agreed
16.	Laptops	73	17	-	-	343	3.8	Agreed
17.	Photocopy machines'	28	32	10	20	248	2.7	Agreed
18.	Smart-phones	39	30	11	10	278	3.0	Agreed
19.	Tablets							

Source: Fieldwork, 2022

N=90

Cut-off Point 2.5

Interpretation

The result on the table 4.3 above shows that variable 12, 13, 14, 15, 16, 17, 18 and 19 with a mean score of 4.1, 3.2, 3.3, 3.5, 3.8, 2.7 and 3.0 respectively which are all greater than the cut-off point 2.5 indicates that respondents accepted that electronic publishing systems include word processing and desktop publishing, electronic communication systems include electronic mail (e-mail), voice mail, facsimile (fax), and desktop videoconferencing and also most e-mail systems let the user do other sophisticated tasks such as filter, prioritize, or file messages; forward copies of

messages to other users; create and save drafts of messages; send "carbon copies"; and request automatic confirmation of the delivery of a message while voice mail is a sophisticated telephone answering machine. It digitizes incoming voice messages and stores them on disk lastly facsimile or facsimile transmission machine (FAX) scans a document containing both text and graphics and sends it as electronic signals over ordinary telephone lines to a receiving fax machine.

Research Question 4: In what way can office professional make maximal us of modern office automation in the organization?

Table 4.4: Respondents views on ways office professional can make maximal us of modern office automation in the organization.

S/N	VARIABLES	SA	A	D	SD	Efx	X	REMARK
20.	Information storage in which text handling software and systems cover the whole field of work processing and desktop publishing.	21	11	5	6	133	3.0	Accepted
21.	Word processing the most basic and common office automat in activity, is the inputting and manipulation of text on a computer.	23	11	4	6	139	3.1	Accepted
22.	Image handling software and systems are another facet of office automation Electronic transfer is a general application area that highlights the exchange of information among multiple users.	44	31	9	6	293	3.2	Agreed
23.	Electronic mail uses computer based storage and a common set of net communication protocols to forward electronic message from one user to another.	30	26	20	14	222	2.4	Disagreed
24.	Other traditional office machines continue to undergo changes that improve their data exchange capacities as well.	50	20	16	4	296	3.2	Agreed
25.	Systems allow users to relay electronic mail to more than one recipient, although they refer to this in an old-fashioned way as carbon copying or cling.	43	30	10	7	289	3.2	Agreed
26.	Users with almost instant access to information stored on a networks and servers from just about anywhere within reach of a cell phone tower or wireless internet transmitter.	39	31	10	10	279	3.1	Agreed

Source: fieldwork, 2022

N=90

Cut-off Point 2.5

Interpretation

The result on the table 4.4 above shows that variable 20, 21, 22, 23, 24, 25 and 26 with a mean score of 3.0, 3.1, 3.2, 3.2,3.2 and 3.1 respectively which are all greater than the cut-off point 2.5 indicates that respondents accepted that the Information storage in which text handling software and systems cover the whole field of work processing and desktop publishing word processing the most basic and common office automat in activity, is the inputting and manipulation of text on a computer, Image handling software and systems are another facet of office automation, Electronic transfer is a general application area that highlights the exchange of information among multiple users, Electronic mail uses computer based storage and a common set of net communication protocols to forward electronic message from one user to another, Other traditional office machines continue to undergo changes that improve their data exchange capacities as well, Systems allow users to relay electronic mail to more than one recipient, although they refer to this in an old-fashioned way as carbon copying or cling, Users with almost instant access to information stored on a networks and servers from just about anywhere within reach of a cell phone tower or wireless internet transmitter

4.2 Major Finding

Based on the analysis and presentation of data from the questionnaires, the followings of this research work are as stated below:

Research Question 1: The effect of modern technology on office professionals performance in the organization?

1. Data management is one of the major components of office automation system that offers strategic advantages by simplifying the management of stored data and information

2. Exchange of stored or manipulated data and information is also an important component of an office automation system. Sending files or exchanging data or information between one or more than one member of an organization has become possible with an electronic transfer application
3. Office automation empowers businesses to save both time and money. It simplifies and automates those complex tasks, which earlier required a dedicated resource and a great amount of time.
4. Office automation does not need to invest much on hiring new resources for taking care of those tasks, which can be easily executed using an office automation system
5. Easy saving of money by automating various complex business processes. With saving large on the overall expenditure and investment on other resources

Research Question 2: What are the challenges offices professional encounter in using office automation?

6. Poorly designed work areas, resulting in discomfort or health hazards.
7. Stressful work environments
8. Time factor has being a challenges in the using of office automation
9. Modern technologies have thrown some office professionals out of job and the trend will continue for some time
10. Low job satisfaction results, absenteeism and turnover
11. Technological changes have tremendously transformed the traditional role of office professionals in the office

Research Question 3: What are the types of office automation used in the organization?

12. Photocopy machines'
13. Voice mail is a sophisticated telephone answering machine. It digitizes incoming voice messages and stores them on disk.
14. Laptops
15. Smart-phones
16. Tablets
17. fax machine
18. A facsimile or facsimile transmission machine (FAX) scans a document containing both text and graphics and sends it as electronic signals over ordinary telephone lines to a receiving
19. Cellular phones are considered as the first mobile phones that entered the technological scene.

Research Question 4: In what way can office professionals make maximal use of modern office automation in the organization?

20. Information storage in which text handling software and systems cover the whole field of work processing and desktop publishing
21. Word processing the most basic and common office automat in activity, is the inputting and manipulation of text on a computer
22. Image handling software and systems are another facet of office automation
23. Electronic transfer is a general application area that highlights the exchange of information among multiple users
24. Electronic mail uses computer based storage and a common set of net communication protocols to forward electronic message from one user to another

25. Other traditional office machines continue to undergo changes that improve their data exchange capacities as well
26. Systems allow users to relay electronic mail to more than one recipient, although they refer to this in an old-fashioned way as carbon copying or cling

4.3 Discussion of Major findings

Based on the answers of the research questions the following are the highlight of the findings on the Effect of Modern Office Technology on the performance of Office Professionals in Selected Organizations in Kaduna, the following findings were discussed;

The study revealed the effect of modern technology on office professionals performance in the organization which include; data management is one of the major components of office technology system that offer strategic advantage by simplifying the management of stored data and information, Lammler, (2017), made refer to the exchange of stored or manipulated data and information is also an important component of an office technology system, sending files or exchanging data or information between one or more than one members of an organization has become possible with an electronic transfer application.

The study revealed that challenges office professionals encounter in using those technology which can be poorly designed work areas, resulting in discomfort or health hazards, time fact has being a challenges in the using of office technology, Onifade (2010) stressful work environment and modern technologies have thrown some office professionals out of job and the trend will continue for some time.

The study revealed the types of office technology used in the organization which are cellular phones are considered as the first mobile phones that entered the technological scene,

facsimile or facsimile transmission machine (FAX) scans a document containing both text and graphics and sends it as electronic signals over ordinary telephone lines to a receiving, Odiaua (2010) fax machine and voice mail is a sophisticated telephone answering machine.

And finally the study revealed ways office professionals make maximal use of modern office technology in the organization which include, information storage in which text handling software and systems cover the whole field of work processing and desktop publishing, Williams (2012), word processing the most basic and common office technology in activities and it is the inputting and manipulation of text on a computer system.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

This last chapter of the study contains the summary of the findings, conclusion that is based on the findings as well as recommendation. In addition, the chapter outlines some area for further research.

5.1 Summary

In an attempt to summarize this research work, the researcher analyzed the effect of modern office technology to office professional in selection organizations in Kaduna Metropolis. Therefore the researcher embarked on the study to assess the worth of this office automation as it affects organization productivity.

Office Technology is extremely important because it help facilitate flow of information within an organization. For instance, through teleconferencing, different individuals from different departments or branches can communicate easily without travelling long distances for meetings.

It is noted also that this manual method makes it impossible for offices to get rid of some old personal files which would have been stored in the computer and help in creating spaces in the office.

The effects of these changes on the performance of office professional in the office is the ability to cope, job security, relevance to the office work for which is employed and moreover, the training which is to prepare to meet the challenges of over-changing work environment.

The research look at the effect of modern technology on office professionals performance in the organization which include data management is one of the major

components of office automation system that offers strategic advantages by simplifying the management of stored data and information, Exchange of stored or manipulated data and information is also an important component of an office automation system. Sending files or exchanging data or information between one or more than one member of an organization has become possible with an electronic transfer application, Office automation empowers businesses to save both time and money. It simplifies and automates those complex tasks, which earlier required a dedicated resource and a great amount of time and Office automation does not need to invest much on hiring new resources for taking care of those tasks, which can be easily executed using an office automation system.

The research revealed the challenges office professionals encounter in using office automation, Poorly designed work areas, resulting in discomfort or health hazards, Stressful work environments, Time factor has being a challenges in the using of office automation, Modern technologies have thrown some office professionals out of job and the trend will continue for some time, Low job satisfaction results, absenteeism and turnover

5.2 Conclusion

Based on the data analyzed and the findings made, the following conclusion have been drawn.

The type of office automation in an organization, tells the worth of that organization, therefore, for an organization to remain successful and be able to complete favorable with other firms, it should stick firmly to the types office automation.

Office professionals achieved large production only when this office technology is able to reduce fatigue or when there will be increase in performance and in return organization will gain maximum production.

The trained personnel within the organization are being employed to service and maintain the procured equipment by management as these will save cost and time since the personnel will be fast about the repairs.

The work surface, which enables the users to perform work in a comfortable way, is well leveled and there is adequate lighting to also enhance the performance of the office professionals.

The machines have great impact on organizational productivity as such; it motivates office professionals to put in more effort when the machinery are adequate and also enhance the performance and productivity of office professionals.

5.3 Recommendations

In connection with the findings and conclusions drawn, the researcher deem it necessary to recommend the following:

1. The managements of the four organization are³ advised to organize traveling for their office professionals in order to go with the trend of happenings around the world.
2. The management of the four organizations can always buy a commensurate desk for comfortable work performance and the lighting should always be adequate.
3. Office professionals should be up to date on how to handle and use modern office equipments in their various offices.

5.4 Areas for Further Studies

Having undergone the research study, the researchers find it necessary to consider the following for future researchers

1. The Impact of modern office technology on office professionals performance
2. Re-structuring the office professional training for better placement in the organization.
3. The importance of office technology in selected organizations.

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(7)77-82.

Department of Office Technology and
Management,
College of Business and Management
Studies,
Kaduna Polytechnics.
P.M.B. 2021.
Kaduna.

Dear respondent,

The researchers are final year students of the Department of Office Technology and Management in the above named institution conducting a research on the topic: **“Effect of Modern Office Technology on the Performance of Office Professionals in Selected Organizations in Kaduna”** in fulfillment of the requirement for the award of Higher National Diploma in Office Technology and Management.

The questionnaire is for academic purposes only, therefore the views gathered will be treated confidentially.

Thank you.

DORCAS ANTHONY ENECHE
KPT/CBMS/EVE/18/49928

SECTION A

Personal Data

Please tick () in the appropriate box for the option of your choice for each variable under the respective sections.

Name of Organization _____

Position: Executive: () Office Professional: ()

The acronyms for the following words/phrases are:

SA = Strongly Agreed = 4

A = Agreed = 3

D = Disagree = 2

SD = Strongly Disagree = 1

SECTION B

What are the effect of modern technology on office professionals performance in the organization?

S/N	VARIABLES	SA	A	D	SD
1.	Data management is one of the major components of office technology system that offers strategic advantages by simplifying the management of stored data and information.				
2.	Exchange of stored or manipulated data and information is also an important component of an office automation system. Sending files or exchanging data or information between one or more than one member of an organization has become possible with an electronic transfer application.				
3.	Office technology empowers staff to save both time and money. It simplifies and automates those complex tasks, which earlier required a dedicated resource and a great amount of time.				
4.	Office technology does not need to invest much on hiring new resources for taking care of those tasks, which can be easily executed using an office automation system.				
5.	Easy saving of money by automating various complex business processes. With saving large on the overall expenditure and investment on other resources.				

SECTION C

What are the challenges office professionals encounter in using office Technology?

S/N	VARIABLES	SA	A	D	SD
1.	Poorly designed work areas, resulting in discomfort or health hazards.				
2.	Time factor has being a challenges in the using of office automation				
3.	Stressful work environments				
4.	Modern technologies have thrown some office professionals out of job and the trend will continue for some time.				
5.	Low job satisfaction results, absenteeism and turnover				
6.	Technological changes have tremendously transformed the traditional role of office professionals in the office				

SECTION D

What are the types of office automation used in the organization?

S/N	VARIABLES	SA	A	D	SD
7.	Cellular phones are considered as the first mobile phones that entered the technological scene.				
8.	A facsimile or facsimile transmission machine (FAX) scans a document containing both text and graphics and sends it as electronic signals over ordinary telephone lines to a receiving				
9.	Fax machine				
10.	Voice mail is a sophisticated telephone answering machine. It digitizes incoming voice messages and stores them on disk.				
11.	Laptops				
12.	Photocopy machines'				
13.	Smart-phones				
14.	Tablets				

SECTION E

In what way can office professional make maximal us of modern office technology in the organization?

S/N	VARIABLES	SA	A	D	SD
15.	Information storage in which text handling software and systems cover the whole field of work processing and desktop publishing.				
16.	Word processing the most basic and common office automat in activity, is the inputting and manipulation of text on a computer.				
17.	Image handling software and systems are another facet of office automation Electronic transfer is a general application area that highlights the exchange of information among multiple users.				
18.	Electronic mail uses computer based storage and a common set of net communication protocols to forward electronic message from one user to another.				
19.	Other traditional office machines continue to undergo changes that improve their data exchange capacities as well.				
20.	Systems allow users to relay electronic mail to more than one recipient, although they refer to this in an old-fashioned way as carbon copying or cling.				
21.	Users with almost instant access to information stored on a networks and servers from just about anywhere within reach of a cell phone tower or wireless internet transmitter.				