

**AVAILABILITY OF OFFICE EQUIPMENT AND ITS EFFECT ON OFFICE
WORKERS' PRODUCTIVITY IN DELTA STATE UNIVERSITY OF SCIENCE AND
TECHNOLOGY, OZORO**

BY

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MAT. NO: ICT/2212060058**

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**A PROJECT SUBMITTED TO THE DEPARTMENT OF OFFICE TECHNOLOGY
AND MANAGEMENT, SCHOOL OF INFORMATION AND COMMUNICATION
TECHNOLOGY, AUCHI POLYTECHNIC, AUCHI.
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF
HIGHER NATIONAL DIPLOMA IN OFFICE TECHNOLOGY AND MANAGEMENT**

DECEMBER, 2022

CERTIFICATION

We, the undersigned, certify that this project work was carried out by **OSARUMWENSE EHIMWENMA GRACE** with **Mat. No: ICT/2212060058** in the Department of Office Technology and Management, Auchi Polytechnic, Auchi.

We also certify that the work is adequate in scope and quality in partial fulfillment of the requirements for the award of **Higher National Diploma (HND) in Office Technology Management**.

.....
Mr. Ogunmilade, A.
(Project Supervisor)

.....
Date

.....
G.C. Nwoko
(Head of Department)

.....
Date

DEDICATION

This project work is dedicated to God Almighty the giver of life for his divine source of inspiration and to my beloved parents.

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The completion of this project work is made possible through the support received from several institutions and individuals who in one way or the other contributed immensely in making this a reality. I acknowledge the management and staff of Auchi Polytechnic, Auchi for providing the needed supports in carrying out this study. I appreciate the efforts of my supervisor Mr. A. Ogunmilade who throughout the study made an invaluable suggestions, corrections and comments.

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I want to specially acknowledge the love and support from my parents Mr and Mrs Osarunwense, and my lovely sisters Mrs Anthonia Diamond Frank, Mrs Uhunoma, Mrs Osariemen, Miss Glory for their love and endurance during the course of this study. I extend my appreciation also to my lovely brother Charles and to my specially friend Faith Mary for their support and sacrifice.

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ABSTRACT

The study examines the availability of office equipment and its effect on office workers productivity in Delta State University of Science and Technology, Ozoro. The Survey design method of project was used in the study. Conceptual and empirical literatures were consulted. The researcher carried out a survey on Delta State University of Science and Technology, Ozoro, using 130 questionnaires distributed to the respondents out of which 100 was retrieved. The simple percentage method of analysis was used to analyzed the data obtain for the study. It was discovered that moderns types of office equipment are generally in use in Delta State University of Science and Technology, Ozoro, it was also discovered that modern office equipment brings job commitment to workers in Delta State University of Science and Technology, Ozoro. The researcher concluded that for the University to remain successful and be able to compete favorably with other institution, it should stick firmly to the modern types of office equipment. The researcher therefore recommend among others that Effort should be made by the management to see that they have adequate knowledge about the equipment they purchase and also, the University should see that their equipment are always adequate and they should guide against any measures that will lead to its incapability.

CHAPTER ONE

INTRODUCTION

Background of the study

An office equipment have gone beyond manual typewriter, ink, pot, local storage facilities etc. into more complicated and effective modern office equipment. Some organization has embraced and purchases some of this equipment while others has not.

In light of the above, the researcher decided to investigate the availability of this equipment and its effect on workers' productivity.

In the early, age activities which include paperwork were done manually with the use of machine such as manual typewriter, large duplicating machine, collating machine etc. These later developed into new modern office equipment due to the disadvantage which includes noise, bulkiness, and lack of speed, waste of energy, time and resources.

Today, office equipment is required in every field of specialization; this is because they facilitate clerical work and preparation of office documents. The use of fax machines, WAP phones, teleprinters, internet and e-mail facilities etc. is now the order of the day. These have now made the work of the office professional more efficient than what it used to be and given rise to what is now known as the modern office. Other equipment include punchers, staplers, electric fan, air conditioners, enhanced furniture and fitting to create a more comfortable and convenient work environment for office activities to be carried out smoothly.

Mills and Ford (2012), noted that office equipment enable workers to work with minimum fatigue. It does not only increase efficiency but boost production process which is the main objective of the organization. Office work is made easier as less effort is put into achieve a greater result. An employee may not have to go from one place to another but can easily sit at his

table and carry out his regular office activities. However, today's office cannot be discussed without relating to technology.

According to Alli and Akinbi (2014), technology is an alteration in the life of an equipment, character, knowledge and method of doing things. The impact of these equipment resulted into acquisition of needed office professionals to effectively operate these facilities in order to be relevant in their labor market.

Pickard (2011), also states that employees who feel good are likely to be more productive. It is easy to instinctively understand that few standard equipment in the office will make it a nicer place to be for employees feel better as a result of the standard equipment in an office. However, when the finance manager wants to know why thousands of money is wasted every year caring for few office equipment, it is difficult to effectively demonstrate the bottom line return on such an investment.

Many organizations are being driven by the value systems of office equipment rather than its contribution to the organizations productively. In recent times, employees learn to operate new office equipment mainly through attending courses, trainings workshop and seminars during which manufacturers will introduce their products and demonstrate by giving illustrations about their equipment to various operators.

Pickard further stress that the office is the center of social interaction and the design provide better meeting rooms, open spaces and telecommunication facilities demands serious attention. The stacking plans for the building are equally important, an efficient office layout will take careful operational advances to optimize the use of assets, facilities and function in use.

Boating (2016) that today's modern office equipment depend largely on the use of office equipment's to maximize and increase organizational productivity. Office equipment help in making office work easier, efficient and time saving and ensures accuracy.

Watson (2012), emphasizes that technology changes has tremendously made an impact in various organizations especially with regards to the office. He points out that office automation product look nothing like it did just 10 years ago. Outfitted with some of the most modern business system and equipment, the office today is contemporary and strict place for business. The sound of noisy and distracting equipment or unsightly machines is now a thing of the past. The quality of output cannot be compared to what it look like years ago.

Roger (2016), points out that environment now resembles any peaceful environment that you can easily relax in and not feel overwhelmed with huge and bulky machines. Some of the hardware cannot be seen easily unless you look really hard.

However, office professionals need to be trained to be acquitted with the use, procurement and maintenance of exiting office equipment as well as know its relevance and benefits to the organization as a whole. This is to enable organization face the challenges associated with it. This is because despite the fact that the technology has changed and transformed the office to a better one. There are still some problems and aspects that cannot be overlooked as a result of those technological changes. The use of some of this equipment has adverse effects on the operators and the organization in general; which can also have effect on its production level.

The equipment has more from the traditional age to the modern age and therefore, there is need for the modern equipment to be available to the users. It is in this regard that the study is embarked on which is titled “An Assessment of the availability of the equipment and its effect on organization productivity.

Statement of the Problem

The impact of the office equipment is of paramount importance to any organization. However, there are some foreseeable problems along with the numerous advantages of its

existence. Many organizations do not put this into consideration especially when it comes to organization Productivity.

Office equipment increases the rate of intra and inter-office communication, however, the cost of installation and keeping the equipment in a working state is exorbitant. The initial cost outlay and maintenance of the equipment will increase their expenses. As a result of this some organization do not purchase or make use of them without checking the cost effect.

Most times, office professionals are not trained on the proper use of equipment or the various maintenance procedure that required of equipment usage. Many organizations do not provide adequate necessary equipment for their employees even when there is need for it. In some organizations this equipment, though they exist, strict measures, rules and protocols need to be followed as declared by the management before employees can have full access to them. It is also a general problem to secretaries and every other worker that makes use of office equipment in the organization.

Hence this study take a look in to the availability of office equipment which as to do with how organization are able to purchase and make this equipment available and accessible to workers, and its effect on office workers productivities which as to do with how workers are able to handle these equipment to get the desirable result in the office.

Purpose of the Study

The major purpose of this study is to access the availability of office equipment and its effect on organizational productivity, Specifically,, the study indents:

1. To identify modern office equipment that are available in Delta State University of Science and Technology, Ozoro.
2. To determine whether workers achieve maximum production from the use of the office equipment in Delta State University of Science and Technology, Ozoro.

3. To find out the problems associated with the procurement and maintenance of office the office equipment in Delta State University of Science and Technology, Ozoro.
4. To find out the impact of office equipment on the productivity of workers in Delta State University of Science and Technology, Ozoro.

Research Questions

The following research questions will be addressed in the cause of this study.

- i. What types of office equipment are available in Delta State University of Science and Technology, Ozoro?
- ii. Do workers achieve maximum production from the use of office equipment in Delta State University of Science and Technology, Ozoro?
- iii. What are the problems encountered in procurement and maintenance of office equipment in Delta State University of Science and Technology, Ozoro?
- iv. How does the provision of adequate office equipment enhance productivity of workers in Delta State University of Science and Technology, Ozoro?

Significance of the Study

This study is significant as it attempts to investigate the availability of Office equipment and its effects on office workers productivity in Delta State University of Science and Technology, Ozoro. The study will help to identify the modern office equipment that are available in Delta State University of Science and Technology, Ozoro. Furthermore, the study will determine whether workers achieve maximum production from the use of the office equipment in Delta State University of Science and Technology, Ozoro. The study also help to find out the problems associated with the procurement and maintenance of office equipment in Delta State University of Science and Technology, Ozoro as well as to examine the impact of office equipment on the productivity of workers in Delta State University of Science and

Technology, Ozoro. It is also expected that the findings of this study will be beneficial to the Delta State University of Science and Technology, Ozoro because they will know the modern office equipment that they need to know and that there is new knowledge of technology that brings changes in the business world. The findings of this study will enrich the existing knowledge, hence; will serve as a guide to both researchers and academicians who are interested in carrying out further researches on this subject matter. The study will be important to policy makers and policy implementers, as they would use the conclusions, findings and recommendations of this study to improve the performance of workers in find out the impact of office equipment on the productivity of workers in Delta State University of Science and Technology, Ozoro.

Scope of the Study

The study will be limited to the availability of office equipment and its effects on office workers productivity in Delta State University of Science and Technology, Ozoro. The study will be carried out in Delta State University of Science and Technology, Ozoro. The study is deliberately restricted to administrative officers, secretaries and Management Staff from Delta State University of Science and Technology, Ozoro worked across six (6) departments, and units. Department of Accountancy, Department of Business Administration, Department of Office Technology and Management, Department of Computer Science, Department of Mechanical Engineering, Department and Registry Department. The total staff strength of administrative officers and secretary working across the various 6 departments and units in Delta State University of Science and Technology, Ozoro amounts to 130 people from Junior Staff 35 people from Senior Staff 35 and 60 from Management Staff, totaling one hundred and thirty people (130).

Operational Definitions of Terms

Equipment: Office equipment includes all items of machine and furniture that facilitate office operation.

Copiers per Minute: that is copies that are done in with speed and can achieve great increase.

Traffic Cop: controlling all the information flowing between the keyboard, the computer itself, the printer and various other devices you may have connected.

Machine Technology: involves the physical aspect of equipment processes and work layout.

Knowledge Technology: are the actual methods, system and procedures involved in carrying out the work or converting input to output

CHAPTER TWO

LITERATURE REVIEW

Introduction

This very study concerned with the assessment of office equipment in Delta State University of Science and Technology, Ozoro and its effect on their productivity. In this chapter, the researcher tries to conduct and analyze write-ups and books of renewed authors which have bearing on the type of study. The review has therefore, been presented on the following sub-topics.

- Office machines as a concept
- Classification of office equipment.
- Criteria for selection of the Office equipment
- Procedure for maintenance of office equipment
- Merit of Office equipment
- Demerit of Office equipment
- Furniture/fitting of office equipment to enhance production
- Assessment of office equipment as it affect the productivities
- Summary

Office Equipment as a concept

An office is the part of any establishment which carryout administrative and clerical duties and where the records of business are prepared and for the purpose of community and providing services. Office equipment is a place where clerical activities are being carried out,

where equipment and machines are used for the production of services for communication and record.

According to Tedisco and Mitchell (2018), office equipment is seen as a ‘goods’ that are used to produce other goods and services but are not themselves used in the process”. It further stresses that the term is used chiefly for such capital assets as machinery, tools and vehicle of various kinds. Included in this definition are typewriter, calculators, copier, computer etc. thus, all of these ‘goods’ produce service but are not themselves used up or depleted on the process.

Mullins (2016) state that office equipment has a large part in information technology, which broadly includes the physical aspect of machines, equipment, process and work layout (machine technology) involved in the transformation or conversation process, and actual methods, system and producers involved (knowledge technology) in carrying out the work of the organization and transforming or converting inputs into output.

We have new information technology today, this refers to microelectronic and microprocessors as applied in manufacturing process, information processing, service provision and products themselves. Their main application may be summarizes as follows:

- ✓ Advance manufacturing technology or computer aided engineering such as computer numerical control machine tools (CNC), Computer Integrated Manufacturing (CIM), and so on.
- ✓ New Technology employed in the provision of service to customers, client patient etc., in service sector, application include Automated Teller Machine (ATM) Electronic fund Transfer (ETF), Electronic Data Interchange (EDI) and other.

Technology advances have produces far reaching changes in the way work are done in the offices. This has make the work more sophisticated as business competition has become more and more acute.

Classification of Office Equipment

Office equipment includes all items of machines and furniture that facilitates offices operations. Equipment can be classified into five classes namely communication equipment, reprographic equipment, Mailroom equipment, filling equipment and others mechanic aids.

Communication Equipment

According to Azuka (2013), communication refers to how are share information pass on what we know to know. The quickest way to share or give information or instruction to anyone is by the Spolan word. Below are some of the communication equipment.

Intercom

The inter-communication look like a small box with switch on it and it is usually placed on a desk. By pushing a button, the employer can attract the attention of his employee and speak with him or her without his office. The operation to the equipment is simple and can be conveniently used for intra-department communication.

Tannoy System

In an open office system, it becomes difficult for a Boss to pass information because of noise. In this situation, Tannon systems play a vital role in the process of communication. In this way one person can pass notices or instruction on to everyone in the building simply by switching on the set and talking into a microphone. The message will be heard in every department, which has a speaker linked to the system.

Telephone

It is an apparatus for transmitting articulated sound by means of magnetic electricity and wires. Telephone system is an innovation in information technology in communicating with somebody over a long distance using wires or radio. These machines provide an easy oral communication within an organization or between two organizations or between intrapersonal communications. It is very fast or very safe for private discussion. There are others communication equipment used in Coca-Cola Company like Radio, Television, and Tele-printers etc.

Mailroom Equipment

Mechanization of the office led to the purchase of several machines aimed at facilitating office work. The machines used in the mailroom include:

Addressing Machine

The term addressing machine came from the function which the machine was first designed that is reproduction of names and address on newspapers wrappers. The machine is most useful in office that have job involving resistive information such Coca-Cola company, insurance company etc.

Most organization has a list of people – customers and suppliers to which they correspond regularly. Whenever such organization write them much time has to be wasted have been developed to eliminate the task of reducing the amount of time spent on the respective typing or writing of envelopes.

Collating machine

When documents which of many pages have been type or duplicated the sorting and shaping together of document is called ‘collating machine have a stapling attachment others also perform the complete collating inserting – sealing machinery process. This equipment has help

the office worker in the case of many cards used by Coca-Cola Company thereby increase their productivity.

Franking Machine

The tedious task of fixing posting stamps to envelopes is avoided by the uses of Franking or Postal Stamping Machine. These machine print on envelopes a red outline of a postage stamp together with stamp together with sender code and the date of posting.

The cost of installation of franking machine is usually high and only company such as Coca-Cola, Nigerian Breweries can afford it. When you are using a franking machine, you must be sure that you alter the data every day.

Other equipment use are opening machine, folding machine, inserting machines, envelope seating machine, postage books etc.

Computer Equipment

A computer is an electronic devices or tool design to accept data as (input), performed prescribed mathematical and logical operation at high speed (Processing) and supplied the result of these operation (output). The electronic machine capable of perfuming calculation and other manipulation of various types of data under the control of s stored set of instruction are the software or program.

According to Jeledo (2002), the computer has become so indispensable in home, office and industries such that with their application, the job of office workers has greatly implored and this also made life easier for them. The effect of a computer system on the job such as designing, production, calculating can be done in a Showtime instead of using manual equipment which could take days complete and this greatly assist the office workers to attend tom other work.

Computer system help the office workers to stored and retrieve information that are of important to the organization. Therefore effective management of information and

processing the computer is the modern equipment that can assist the officer worker to perform their duties accurately and effectively.

There are various services that can be connected with the computer the system. Such services include internet, E-mail, facsimile transfer etc.

Internet Services

An internet means International network. It is an improvement on the computer as a tool of communication in thy dispensation. It is a graphical hypertext based, multimedia tool capable computer. Use can now view graphic and video filled listed to audio file as well as retrieve information from internet.

Internet is an international network where different information is placed and source from various locations for the purpose of meeting human need. These networks consist of many computer stations which are linked through satellite system. It is a tool for assessing information from data bank relevant to the need of an organization as well as individuals.

E-mail

Electronic mail (e-mail) is another services render by the internet service. It involved sending writing message via computer system. The communication can be feasible the sender and the receiver of the message must be subscriber to the internet service provider.

Most organization are connected to this service because of its readability and speed owing to the fact that on daily basis, it is very important for the development growth and this make the office worker more versed to the computer knowledge.

The effect of e-mail cannot be over emphasized. It helps the office worker to get message across to appropriate authority within a short period of time. They can receive message from boss while on business trip.

Facsimile Transfer (FAX)

Facsimile Transfer is a means of transmitting and receiving image (map, drawing and picture) as well as point or handwriting and can therefore be used to send exact copies of the documents. The equipment establish to link by means of either telephone system to the computer for direct transmission of computerized information by fax without interception or delay which might arise the ordinary post or even a personal delivery service were used.

The effect of facsimile transfer on office workers is that document can be transfer without the loss of security, facsimile help to send message as exact as original copy of the document and the idea of loss in transmits is eliminated completely thereby protect the job of secretaries and keep the secret of the organization.

The Modern

The Modern enables you to transmit data from one computer to another ordinary telephone lines. It provides the computers digital language into telephone analog language for transmission. At the other end, a receiving modern converts it back to a digital signal this is where the modern name comes from, it is a device that modulates and demodulates data.

There are two types of modem, the internal and external modem. The internal modem is a board that is fits into a slot in the computer and the external modem, is a small box that is attaches to the computer cable.

Reprography Equipment

Reprography equipment is machines used for making copies of documents. In the environment, any equipment used for the production of copies is called a reproduction or reprographic. They include the followings:

Scanners

Scanners is an electronic machine or device that can be used to transfer document or printed materials like graphics and pictures, into another electronic device such as computer for onward processing. It eliminates retyping of a document afresh.

Global System for Mobile Communication (GSM)

GSM is one of the products of information and communication technology industry that has allowed the use of handset telephone which can be used worldwide for the purpose of communicating between one person and another. Global System for Mobile Communications permits an individual to have a telephone line which can be used anywhere the server of the operator is provided.

To be able to use Global System for Mobile Communications, you must buy a handset and a SIMS card or line of any GSM operator to get you connected to their ordinary communication of sound, in fixed wired telephone. It is a useful device that enhances office communication and performance of office functions.

Photocopy Machines

Photocopy machines are the most commonly used office machines for reproducing documents. Two imaging technologies are used: Analog and digital. This is similar to laser printer, in that is paper is electro-statistically changed to attract link like toner to its surface. The toner may be in powdered or liquid form and can be refilled as needed right in the office. According to Delhi (2012), photocopies are classified according to capacity.

Copy per minutes and copier per month. Here are the typical ranges for standard type of copier.

TYPES	Copies per minutes	Copies per month
Low-volume	10-20	2,000-20,000
Medium-volume	20-50	20,000-50,000
High-volume	50-100	50,000-100,000

Low-volume copiers tend to have few special features and may even be desktop models. Medium – volume copiers are generally equipped with an automatic document feeder and a collator and adequate for most referred routine office copying needs. High-volume copier sometimes referred to as High speed copiers – duplicators, often provide two sides printing and stapling.

Furthermore, its features vary by manufacturer and to even greater extent by the volume of work the machine was designed to perform. Some of the machine was designed to perform some of the common features are described below:

- **Automatic document Feeder:** this is usually accommodates 50 or more pages set of a time. Another version of this feature called semi automatic document feeder, allow you to manually feed page into the copies in a continuous stream one at a time.
- **Collate:** if you frequently needs numerous copies of lengthy documents, you will need a copier that can collate for you. Each collated copy is assembled in a separate sorter bin.
- **Job Interrupt:** This feature also known as “memory” allow you to stop a large in progress so that someone else can use the machine for a quick copy or two. The

copier remembers where it was in the original job and resumes copying without mixing up the sequence of pages.

- **Paper Trays:** low volume copiers generally accept one tray size at a time, but medium high volume copiers can hold up to three trays for 8 ½ x14,, and 11” x 17”, (computer printout size) paper.
- **Reduction/ Enlargement:** Most copiers rated for medium or high volume have the ability to make copies that are from roughly 60 percent to 140 percent of the sizes of the original.
- **Sorter:** Copiers that collate have a sorter to collect each collated set of copies. The sorter is a set of shelves that moves up and down to accept copies as they exit from the machine.
- **Stapling:** Generally available only on high-volume machines, this features enable you to produce collated and stapled document automatically.
- **Two Side Copying:** this features also known as “duplicating” may be automatic or semi automatic, if automatic, the copier will print both side of each sheet before ejecting the copies to the tray or sorter.

In semi automatic version, the users may have to manually turnover and reinsert the partially printed copies.

Typewriter

The typewriter is the most used and best known of office machines. It is used not only for neat and clean letters and reports not also for the fact that a number of copies can be made with the uses of stencils and carbon papers.

There are three models of typewriters these are

- The Pica Model which has a pitch of ten letters to an inch.
- The Elite Models which has a pitch of twelve letters to an inch and
- Continental model, which has 9.9 pitch I.e. 88 spaces across an with – inch typing paper.

There are various of typewriter today namely, the standard typewriter, The Electronic typewriter and the Automatic typewriters.

- **Standard Typewriters:** This is the normal type of machine popularly referred to as the manual typewriter, where the typist fingers provide the motive power to operate the type bars and a clock work mechanism and escapement produce interest movement of the carriage.
- **Electronic Typewriters:** These are becoming more and more popular and increasingly are offering more and more facilities. Some of these features are of immense help to the operator and some are not likely to be used a great deal.
- **Automatic typewriter:** The introduction of automatic typewriter has led to a considerable increase in the speed of the typing services where repeated typing of standard matter is required. Basically, automatic typewriter operates on the principles of prepared master which is used to activate the typewriter to produce a required work. The basic automatic typewriter is a normal electric typewriter fitted with a punching and reading devices.

Filing Equipment

Filing equipment is the orderly strong of documents. The objective in storing these documents is not only to keep the place tidy but also to ensure they can be retrieved within the shortest possible time. Filing is the commonest methods for safeguarding important information and records. There are various types of filing equipment which include; flat

files, Ring folder, wallet file, box file, cabinet with drawers, suspension file loose-leaf binder etc.

- Manila or flat files: These are made of thin card. Most companies use flat files to keep together all the letters or documents concerning day-to-day activities of organization.
- Box files: These are usually with a spring clip or some other retaining devices. Boxes are generally filled with a strong clip so that paper or document may be held firmly.
- Cabinet with drawer: These are commonest form of storage found in offices. These cabinets are made of steel and when all the drawers are closed, they can be locked; steel has replaced wood because it is more durable and also relatively fireproof.
- Suspension filling: this is the system in which files are suspended on metal carriers in cabinets by means of metal bar attached to their edge. Pockets are provided in which files folders could be suspended. Such pockets are joined in a continuous process across the length of the cabinet drawers or across the rack of the lateral filling.

Mechanical/Electronic Aids

In addition to the office equipment so far discussed, there are others equipment used in Coca-Cola to facilitate office work. Modern Organization such as they one have to cope with a large volume of figures. For purpose of conveyance, these figure machines have been grouped as mechanical/electronic aid. They include;

- Adding Machines: Like calculating machines are used to figure as quickly as possible the many computations that are necessary in modern day business offices. Somebody in the office sometimes the confidential secretary, may be required to

figure out the computation for the weekly payroll, the annual budget or income tax report for the organization.

Some basic types computing machines add, subtract, multiply, divide and to do other mathematical computations. Adding machine can be operated manually or electrically.

- **Calculating Machine:** calculating machine are used when calculation have to be made on large scale. These machines contribute to greater business efficiency. It increases clerical efficiency and brings about economy in staffing. The three basic types are key drawn, rotary and printing calculator. The key-driven calculator adds and multiplies and is widely used in billing and checking because it is capable of computer extensions precisely and speedily.

The rotary calculator is an all-purpose machines which adds, subtract, multiples, divide and solve mathematical problems such as discount and percentages. It is used widely in billing and statistically works because it is versatile. The printing calculator is a machine for the small offices. It adds, subtracts, multiplies and divides.

- **Accounting Machines:** Accounting machines are bookkeeping or posting machines. They are complex and combine the functions of computing machines and those of typewriting machines. Accounting machines containing registers can record, the accounting of purchases, sales invoice, statement, orders and delivery devices and other accounting papers.

Printing Machine

Printers provide the printed output, or hard copy from a computer. They vary widely in speed, quality of output, available printing fonts, and cost.

Two categories of printers exist: impact and non-impact.

Impact Printers: Impact Printers strike a ribbon, similar to typewriters, while non-impact printers create characters through the use of heat or light or by spraying ink on a page.

Non-Impact Printers: Non-impact printers are noiseless but cannot make carbons. There are four types of non-impact printers ink jet printers, thermal-transfer printers, laser printers etc.

The old fashioned mimeograph, long favored by schools and non profit organization because of its easy low cost, it still in use but has very little application in today's offices.

Offset printing is also popular in the centralized reprographics department of many organizations as well as in franchised retailed copying shops. Offset machines is often used for books and magazine printing: it process higher quality results than photocopying and can be more commercial for printing thousands of copies.

Generator

Generator is also a machine that enhances production in various organizations, since there is no constant supply of electricity, it becomes important for organization to resolve using generator as an alternative sources of power in order to produce and increase their efficiency.

In addition, Groiler (2017), defines generator as a machine that converts mechanical energy to electrical energy. More broadly, an electric generator can be defined as any devices that converts some form of energy to electrical energy. These devices includes batteries and fuel cell which converts chemical energy to electrical energy; photoelectric cells, which convert the energy of light to electricity and thermo electric generator which convert thermal energy to electrical energy. These are various types of

generators Homopolar generator, magneto hydrodynamic generator and high frequency as generators.

Criteria for selection of Office Equipment

It should be remember that errors in machines selection could be disastrous, very costly to the department and damaging to the reputation of any offers who recommended the purchases of offices equipment in an office. To help in this decision-making process of selecting office machines, here are some factors to consider before making any purchases.

- The need for the equipment: certain machines are indispensable to the effective operation of an office. These machines should as possible be purchased, such machines includes, computers, photocopy, generator etc.
- The amount of money available: you should not budget over and above the amount of money that has been set aside for the purchases of the equipment.
- The price of the machines: Depending on the budgeted amount the prices of the machines should be taken into consideration. If a machine is cheap and good, then you think about such a machine.
- Speed of Machines: If an operation is time sensitive, a machine often can be justified because automation can move up deadlines, speed up, rush jobs and improve peak-time work performance.
- The Durability of Machines: This is important because certain machines last longer than others. The Gestetner brand of duplicating machines for example is very durable.

- The Space in the Office: The space in the office should be considered before embarking on the purchases of any machines. Where before embarking on the purchases of any machines. Where space is at a premium the portable machines that can be placed on top of a table or filling cabinets should be preferred.
- Availability of Spare parts: There are certain machines which when break down cannot be repaired easily simply because the parts are not available or are only available overseas.
- Availability of people with Technical know-how-you should also think about the possibility of getting experts locally instead of going overseas to look for them anytime the machine breaks down.
- Need for Accuracy: Is a high degree of accuracy required? Will the machines improve the accuracy of job performance through the elimination of checking and rechecking.
- Operation: Certain machines require specially trained experts to handle them whereas there are other machines that can be operated by anybody without very little training.

Procedures for Maintenance of Office Equipment

When the machine does not operate properly, a services person should be contacted immediately to remedy the problem as soon as possible. Lucky (2015), states that the maintenance of office equipment is critical if the equipment is to function properly when needed and to wear satisfactorily the problem can be rectified through the service plan.

Service Plan

There are three types of plan available under this and they include: A contract with the service department, per-call arrangement with the service department and an in-house service plan.

- **Service Contracts/maintenance Agreement:** This is where an organization enters into a contract with the manufacturer of the equipment or with an independent service company to provide service for a one year period for a specified fee. Service contract can provide unlimited service, including periodic inspection and cleaning of the equipment, unlimited emergency calls, and replacement of worn-out or defective parts without charge. But service contract may be higher, when equipment is located beyond a certain distance.
- **Per-Call Arrangement:** In per-call arrangement the manufacturer inspects and';/or repairs equipment only when a specific request is received from the organization. Each per-service calls is charged on a hourly basis. It may also include the serviceman's mileage or driving time.
- **In-house Service:** Organization with a large numbered of machines may maintain their own service department with personnel who are especially trained to service equipment. This type of in-house assistance can eliminate the expenses of an annual service contract with the manufacturer.

Merit of Office Equipment

Office machines have been developed to improved office methods and speed up office work. The employer, the employee and the general public gain the benefits derived.

- Management can be sure of more up to date records and records are not only accurate they are also reliable.

- Information and instruction concerning work will be more promptly received and so there will be better communication between employer and employee.
- There will be cheaper goods and services to the public as a result of economics affected by the employers.
- There is reduction in mental strain.
- There will be better and quicker service and information to the public.
- Document will be prepared and served to customers in more legible form.
- Office equipment such as fans, air-condition, suitable furniture etc. create conducive atmosphere for staff.
- Hardware Computer, which is the latest word processing automation system help the organization to process data store information indefinitely until it is needed or wiped off from the diskette, therefore, save the organization heavy cost of procuring cabinets and files.

Demerit of Office Equipment

- It is a bit costly to maintain and at times they can breakdown unexpectedly.
- When a machine is used, it enforces its own pattern that may be rigid upon the system, which makes it less flexible than was the case.
- Manual machine can subject the operators to fatigue and it run little or no output will be achieved.
- Electric/electronic systems are subject to power failure; when there is power failure the whole work will come to a standstill. This does not only cause delay but could make organization lose substantial income.
- It involves high capital outlay.

Furniture/fitting of office equipment production

Seating position is very important in most organization. Many people suffer from back pains as a result of sitting all day on unsuitable chairs. Njukeden (2011) opines that there is every justification for management today to pay close attention to types of furniture it buys for office use. The height of desks and chairs is important writing surfaces which are too high or too low can cause physical pain eyestrain and consequently lower a person's productivity (Ottih, 2013).

- Desk Height: Individual differ has to be able to adapt to fit the employee no matter what size the employee has, today, most desks have screw adjustments in the legs for changing the height from different inches. Some also have work surfaces that can be lowered easily to enable the user to perform certain work assignment comfortable, such as those using typewriter or computer terminal.
- Desktop Surfaces: The desktop surface be resistant to heat stain and scratches, easy to clean and easy to write on. Two materials that are commonly used for desktops are laminated plastic and linoleum. Laminated plastic has the advantages of easily maintaining, a good appearance and resisting damage, linoleum can also maintain a good appearance for many years.

Selection of Office Equipment

- Furniture should be standardized design.
- Furniture should be of good quality rigidly constructed to prevent vibrations and to maintain sturdiness.
- Casters and glides should be smooth and round to prevent injury to persons and clothing.
- The design of furniture should be able to move to an for the user to provide maximum comfort and efficiency.

However, it is certain that all users need working and sitting space to enable them to be productive. Therefore criteria for selection of office furniture are essential.

Types of Office furniture

There are several kinds of office furniture for office use among which are.

- **Executive:** This is chosen mainly for its appearance. Its main purpose is to impress visitors with the prestige of the executive using it.
- **Special:** This is design for a specific purpose in the office e.g. a secretary's desk, a collating desk etc.
- **Built-in-furniture:** This is cheaper to buy and saves floor space.
- **General electrical desks:** These should be suitable for the work to be done on them.

It is possible to get well designed standardize desks which enhances the appearance of the office.

Fitting

People react to physical condition, sometimes the reaction is subconscious so that a person becomes fatigue but does not know why. In adequate lighting, ventilation, heating etc. could cause this. According to Armstrong (2016) fitting are also known as physical condition that cause the work environment to be conducive for maximum production.

The following are physical conditions that enhance production in any given organization.

- **Lighting:** The best light is daylight, in many offices daylight is not sufficient or is non-existent, so artificial lighting is essential. Some shading of light is desirable to avoid glare, lighting requirement vary according to the desirable to avoid the height of the ceiling, the number of people working in the office the position of desks, machines, the types of work being done etc.

- **Heating:** A temperature between a minimum of 16°C and a maximum of 19°C should be maintained. When people are too cold their energy is channeled into keeping warm with a consequent reduction in output, while an overheated atmosphere induces lassitude in many people with the same result.
- **Ventilation:** Many offices are air-conditioned so that windows do not have to be opened. Air condition systems either draw in fresh air from outside or recycle used air after cleaning and re-oxygenating. Some system creates substantial draughts which limits the positioning of furniture. If there is no air-conditioning there must be adequate ventilation. A stuffy atmosphere is caused by increased carbon-dioxide which reduces people's capacity to think and act, thus reducing output.

Assessment of Office Equipment as it effect the Productivity

In Judging these machines on organization productivity, the researcher observed that there is a close inter-relationship between the machine side of technology and the specialist knowledge side of the technology (Brandy, 2011).

In addition, the nature of technology can therefore be applied to the analysis of all organization. For example, in any organization the machine side will include computer, facsimile, Telephone reprography etc. However, having known that neither do these machines operates themselves nor do productions spring up on its own, without an operator, there are close interrelationship between machines side and the specialist who operate the machine.

Therefore, in assessing these machines on productivity, and how the availability of office technology has influence the behavior of people at work. The following has been drawn out.

- It affects the nature of social interactions. For example, the size and nature of work groups, the extent of physical mobility and of contacts with other people. All this is achieved as a result of well equip machines in the work place.
- The machines are sources of motivation; since people with higher level of specialist technical knowledge and expertise tend to receive status and pay, others are moved to acquire or add more their knowledge.
- The new office machine offers vast improvements over older models. Today's office machines feature a good deal of automated and self-diagnostic functions that make them easier to use, easier to maintain and more productive.
- With the new office machines, organization are known as “electronic” office as being compose of various functions which are done either completely or almost completely by today's current marvels or electronic machines and the likes.

Summary of Literature Review

Having looked on office equipment and its worth on organization productivity from various author's views there is need for the equipment to be intact for maximum production.

Office equipment is defined in the review as a ‘goods’ that are used to produce other goods and services but are not themselves used up in the process’. It further stress that the term is used chiefly for such capital assets as machinery, tools and vehicle of various kinds, included in this definition are typewriter, calculators, copier, computer etc. thus, all of these ‘good’ produce service but are not themselves used up or depleted on the process.

Another author state that office equipment has a large part in information technology, which broadly includes the physical aspect of machines, equipment, processes

and work layout (machine technology) involved in the transformation or conversation process, and actual methods, system and producers involved (knowledge technology) in carrying out the work of the organization and transforming or converting inputs into output.

It is important to note that anything which reduce fatigue increase productivity. Also, anything which is designed to minimize movement both saves processing times and reduces stress. Therefore, it is essential for management to be of the opinion of making their organization that of “electronic office” to be on the leading edge of technology, not being contented to sit back until all the “bugs” are ironed out. Creating a truly electronic office will command a large infusion of capital.

The review also shows the classification of office equipment which includes all items of machines and furniture that facilitates office operations. This equipment can be classified into five classes namely communication equipment, reprographic equipment, Mailroom equipment, filling equipment and others mechanic aids.

In confirmation, the thoughtful planning and placement of an office equipment for office workers is to be able to access them easily which will energize them to work with minimum fatigue.

CHAPTER THREE

RESEARCH METHOD

Introduction

This chapter is base on the procedures the researcher used in collecting data for the study. This includes: research design, population of the study, sample and sampling techniques, instrument for data collection, methods of data collection and method of data analysis. .

Research Design

The researcher used survey design method in building up this project work, the choice of this research design was considered appropriate because of its advantages of identifying attributes of a large population from a group of individuals. The design was suitable for the availability of office equipment and its effect on office workers productivity in Delta State University of Science and Technology, Ozoro.

Population of the Study

Population of the study was made up of 35 Junior staff, 20 Senior staff and 75 Management staff in the six (6) department from Delta State University of Science and Technology, Ozoro, making it a total of 130 staff.

Table 1

Population Size

S/No	CATEGORY	No
1.	Junior Staff	35
2.	Senior Staff	20
3.	Management Staff	75
TOTAL		130

Source: Research Field Study, 2022

Sampling and Sampling Techniques

The research used the entire population for the sample size. This is due to the fact that the population is not too large and corresponds with the view of Denji and Ali (1991) who opines that where the population is not large, every member of the population should be used. This therefore shows that the sample size remains 130.

Instrument for Data Collection

The questionnaire, which instrument used for collection of data contains structured statement so that diverse responses could be harmonized for analysis and interpretation. The questionnaire is made up of two numbers A-B. section A, dealt with the personal data of the respondents while other sections contained items for responding to the research questions adopted for the study. All the items relating to a particular research question are put in one section for easy understanding and response.

Method of Data Collection

Data were collected from two main sources namely:

Primary source and Secondary Source

Primary Source: The primary source of data used was the questionnaire and personal interview. The respondents were given time to supply answers to the question based on their understanding. The questionnaire was administered and retrieved by the researcher within a specific period of time.

Secondary Source: These are data from textbook, journal, internet, past projects magazines, newspaper etc.

The researcher used questionnaires as the best method of data collection. This is because researchers of this nature that has to do with conducting a survey into operational activities of office require documentary method. Hence, the questionnaires have served as documentary purpose. More so, the time available to the researcher necessitate the choice of questionnaire.

Method of Data Analysis

The simple percentage method is believed to be straight forward easy to interpret and understand method. The researcher therefore chooses the simple percentage method to analyze the data collected. Using the formula below:

$$\frac{\text{Total Number of Responses}}{\text{Total Number of Respondents}} \times \frac{100}{1}$$

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND DISCUSSION

Data Analysis

This chapter deals with how data collected for this study were analyzed, the findings as well as the discussion of findings. In the course of this study; questionnaire was distributed to the study participants which are workers of Delta State University of Science and Technology, Ozoora. A total number of one hundred and thirty (130) questionnaires were distributed by the researcher to the respondents out of which one hundred (100) was retrieved (i.e. 77% return rate) and these were used for the analysis and interpretation of data.

Section A: Background Information of Respondents

This part deals with the background information of respondent based on age, sex, category of staff, level of education and the period of services.

Table 2:**Age Distribution of Respondent**

Age	No of respondents	Percentage%
17- 20 years	3	3
21-26 years	20	20
27-30 years	52	52
31 years and above	25	25
Total	100	100

Source: Field Data, 2022

The table 1 above shows the distribution of respondents according to age variable, 3 respondents representing (3%) fall within the age of 17-20 years, 20 respondents representing (20%) fall in the age of 21-26, 52 respondents representing (52%) which fall within the age 27-30 years while the remaining 25 respondents representing (25%) which fall within 31 years and above. it can be seen in the table that the age bracket of 27-30 years has the highest population.

Table 3**Sex Distribution of Respondents**

Sex	No of respondents	Percentage (%)
Male	44	44
Female	56	56
Total	100	100

Source: Field Data, 2022

The table 2 above indicates that 44 respondents representing (45%) were male while 56 respondents representing (56%) were female. These shows that female are more than male in the population.

Table 4**Category of Staff Distribution of Respondents**

Variable	No of respondents	Percentage (%)
Senior Staff	22	22
Middle Staff	50	50
Junior Staff	28	28
Total	100	100

Source: Field Data, 2022

The table 3 above indicates that 127 respondents representing (70.56%) were single while 53 respondents representing (29.44%) were married. This shows that single are more than married in the population.

Table 5**Education Qualification of Respondents**

Qualification	No of respondents	Percentage(%)
BSc	25	25
MSc	2	2
PhD	-	-
HND	35	35
ND	23	23
Others	15	15
Total	100	100

Source: Field Data, 2022

The table above table 4, indicates that 25 respondents representing (25%) are BSc holders, 2 respondents representing (2%) are MSc holders, 35 respondents representing (35%) are HND holders, 23 respondents (23%) are ND holders, while 15 respondents representing (15%) are others. It can be seen in the above table that HND holders are more than the rest in the respondents.

Table 6

Years of service of Respondents

Variable	No of respondents	Percentage (%)
1yrs-5yrs	36	36
6yrs-10yrs	64	64
Total	100	100

Source: Field Data, 2021

The table 5 above indicates that 36 respondents representing (36%) were in services for 1 year to 5 years while 54 respondents representing (64%) were 6 years to 10 years. This shows that the respondents in services between 6 years to 10 years are more in the population.

Section B: Items Related to Research Questions

Research Question One: What types of office equipment are available in Delta State University of Science and Technology, Ozoro?

Responses to items 1, 2, 3 and 4 of the research questionnaires were analyzed and used to answer research question one as shown below:

Table 7

Analysis of Responses to Research Question One

S/No	Items	Variables	No. of Respondents	Percentage
1.	The office is stuffed	Strongly Agreed	82	82% %
	With the electronic types	Agreed	8	8%
	of equipment e.g. computer,	Disagree	10	10%

	Photocopies etc.	Strongly Disagree	-	-
		Total	100	100
2.	The modern types of office equipment are generally in use in all the office.	Strongly Agreed	50	50%
		Agreed	35	35% %
		Disagree	5	5%
		Strongly Disagree	10	10%
		Total	100	100
3.	Communication equipment is available in the institution academic performance	Strongly Agreed	82	82%
		Agreed	10	10%
		Disagree	6	8%
		Strongly Disagree	-	-
		Total	100	100
4.	Internet facility is Available in the Institution.	Strongly Agreed	70	70%
		Agreed	23	23%
		Disagree	-	-
		Strongly Disagree	7	7%
		Total	100	100

Source: Field Data, 2022

Item 1 on the questionnaire was provided with four variable, 82 respondents representing (82%) strongly agreed that office is stuffed with the electronic types of equipment e.g computer, photocopies etc., 8 respondents representing (18%) agreed, while 10 respondents representing (10%) disagreed that office in Delta State University of Science and Technology, Ozoro are stuffed with the electronic types of equipment such as computer, photocopies etc.

Item 2 on the questionnaire was provided with four variables, 50 respondents representing (50%) strongly agreed that modern types of office equipment are generally in use in all the office of Delta State University of Science and Technology, Ozoro, 35 respondent representing (35%) agreed, while 5 respondents representing (5%) disagreed to the notion.

Item 3 on the questionnaire was provided with four variables, 82 respondents representing (82%) strongly agreed that communication equipment is available in Delta State University of Science and Technology, Ozoro, 10 respondents representing (10%) agreed, while 8 respondents representing (8%) disagreed that communication equipment is available in Delta State University of Science and Technology, Ozoro. Item 4 on the questionnaire was provided

with four variables, 70 respondents representing (70%) strongly agreed that internet facility is available in Delta State University of Science and Technology, Ozoro, 23 respondents representing (23%) also agreed, while 7 respondents representing (7%) strongly disagreed that internet facility is available in Delta State University of Science and Technology, Ozoro

Research Question Two: Do workers achieve maximum production from the use of office equipment in Delta State University of Science and Technology, Ozoro?

Responses to items 5, 6, 7 and 8 of the research questionnaire were analyzed and used to answer research question two as shown below;

Table 8

Analysis of Responses to Research Question Two

S/No	Items	Variables	No. of Respondents	Percentage
5.	The availability of office equipment reduces and increases productivity.	Strongly Agreed	98	98% %
		Agreed	2	2%
		Disagree	-	-
		Strongly Disagree	-	-
		Total	100	100
6.	Workers can now do things faster than previously.	Strongly Agreed	90	90%
		Agreed	2	10% %
		Disagree	-	-
		Strongly Disagree	-	-
		Total	100	100
7.	information can easily be stored in computer instead of files.	Strongly Agreed	85	85%
		Agreed	10	10%
		Disagree	5	5%
		Strongly Disagree	-	-
		Total	100	100
8.	The equipment add more knowledge to the users skills.	Strongly Agreed	90	77.77%
		Agreed	10	10%
		Disagree	-	-

Strongly Disagree	-	-
Total	100	100

Source: Field Data, 2022

Item 5 on the questionnaire was provided with four variables. 98 respondents representing (98%) strongly agreed that availability of office equipment reduces fatigue and increases productivity, while the last 2 respondents representing (2%) also agreed that availability of office equipment reduces fatigue and increases productivity.

Item 6 on the questionnaire was provided with four variables, 90 respondents representing (90%) strongly agreed that workers can now do things faster than previously, while 10 respondents representing (10%) also agreed.

Item 7 on the questionnaire was provided with four variables, 85 respondents representing (85%) strongly agreed that information can easily be stored in computer instead of files, 10 respondents representing (10%) also agreed, while 5 respondents representing (5%) disagreed that information can easily be stored in computer instead of files.

Item 8 on the questionnaire was provided with four variable, 90 respondents representing (10%) strongly agreed that office equipment add more knowledge to the users skills, 10 respondents representing (10%) also agreed.

Research Question Three: What are the problems encountered in procurement and maintenance of office equipment in Delta State University of Science and Technology, Ozooro?

Responses to items 9, 10, 11, and 12 of the research questionnaire were analyzed and used to answer research question three as shown below:

Table 9

Analysis of Responses to Research Question Three

S/No	Items	Variables	No. of Respondents	Percentage
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9.	Modern office equipment are expensive to purchase and installed.	Strongly Agreed	72	72% %
		Agreed	20	20%
		Disagree	8	8%
		Strongly Disagree	-	-
		Total	100	100
10.	Office equipment are expensive to maintain.	Strongly Agreed	95	95%
		Agreed	5	5% %
		Disagree	-	-
		Strongly Disagree	-	-
		Total	100	100
11.	Qualified engineers are expensive to hire for the maintenance of office equipment.	Strongly Agreed	87	87%
		Agreed	10	10%
		Disagree	-	-
		Strongly Disagree	3	3
		Total	100	100
12.	Engineers who maintain office equipment in Delta State University are not staff of the institution.	Strongly Agreed	50	50%
		Agreed	10	10%
		Disagree	33	33%
		Strongly Disagree	7	7%
		Total	100	100

Source: Field Data, 2022

Item 9 on the questionnaire as provided with four variables, 72 respondents representing (72%) agreed that modern office equipment are expensive to purchase and installed, 20 respondents representing (20)% also agreed, while the remaining 8 respondents representing (8%) disagreed are expensive to purchase and installed.

Item 10 on the questionnaire was provided with four variables, 95 respondents representing (95%) strongly agreed that office equipment are expensive to maintain, 5 respondents representing (5%) also agreed to the notion.

Item 11 on the questionnaire was provided with four variable, 87 respondents representing (87%) strongly agreed that qualified engineers are expensive to hire for the maintenance of office equipment, 10 respondents representing (!0%) also agreed, while the rest 3 respondents representing (3%) also strongly disagreed that qualified engineers are expensive to hire for the maintenance of office equipment.

Item 12 on the questionnaire was provided with four variable, 50 respondents representing (50%) strongly agreed that engineers who maintain office equipment in Delta State University of Science and Technology, Ozoro are not staffs of the institution, 10 respondents (10%) also agreed, 33 respondents representing (33%) disagreed, while the rest 7 respondents representing (72.22%) strongly disagreed that engineers who maintain office equipment in Delta State University of Science and Technology, Ozoro are not staff of the institution.

Research Question four: How does the provision of adequate office equipment enhance productivity of workers in Delta State University of Science and Technology, Ozoro?

Response to Items 13, 14, 15 and 16 of the research questionnaire were analyzed and used to answer research question four as shown below:

Table 10

Analysis of Responses to Research Question four

S/No	Items	Variables	No. of Respondents	Percentage
13.	Modern office equipment increase productivity of workers.	Strongly Agreed	94	94% %
		Agreed	6	6%
		Disagree	-	-
		Strongly Disagree	-	-
		Total	100	100
14.	Office equipment brings job satisfaction to workers in Ambrose Delta State University of Science, Ozoro	Strongly Agreed	82	82%
		Agreed	16	16% %
		Disagree	2	2
		Strongly Disagree	-	-
		Total	100	100
15.	Modern office equipment Brings job commitment to workers in Delta State University Science, Ozoro.	Strongly Agreed	90	90%
		Agreed	10	10%
		Disagree	5	-
		Strongly Disagree	-	-
		Total	100	100
16.	Office equipment reduce stress and increase job	Strongly Agreed	84	84%
		Agreed	13	13%

effectiveness.	Disagree	2	2%
	Strongly Disagree	1	1%
	Total	100	100

Source: Field Data, 2021

Item 13 on the questionnaire was provided with four variables, 94 respondents representing (94%) strongly agreed that modern office equipment increase productivity of workers in Delta State University of Science and Technology, Ozoro, while the remaining 6 respondents representing (6%) also agreed that modern office equipment increase productivity of workers in Delta State University of Science and Technology, Ozoro.

Item 14 on the questionnaire was provided with four variable, 82 respondents representing (82%) strongly agreed that office equipment brings job satisfaction to workers in Delta State University of Science and Technology, Ozoro, 16 respondents representing (16%) also agreed, while the rest 2 respondents representing (2%) disagreed that office equipment brings job satisfaction to workers in Delta State University of Science and Technology, Ozoro.

Item 15 on the questionnaire was provided with four variables, 90 respondents representing (90%) strongly agreed that modern office equipment brings job commitment to workers in Delta State University of Science and Technology, Ozoro, 10 respondents representing (10%) also agreed.

Item 16 on the questionnaire was provided with four variables, 84 respondents representing (84%) strongly disagreed that office equipment reduce stress and increases jobs effectiveness. 13 respondents representing (13%) also agreed, 2 respondents representing (2%) disagreed while the rest 1 respondents representing (1%) also strongly disagreed that office equipment reduce and increase job effectiveness.

Findings

Based on the result of the research question formulated and data obtained at the end of the investigation after data analysis and interpretation, the following findings emerged.

1. The modern types of office equipment are generally in use in Delta State University of Science and Technology, Ozoro.
2. The Senior staff, Junior staff and Management staff of Delta State University of Science and Technology, Ozoro selected for study stated that they can now carryout their functions faster than previously done. i.e with the aid of the available equipment.
3. It is also discovered that, the equipment add more to the knowledge and skill of the users and this helps them in the achievement of maximum production.
4. The respondent concurred that the independent service company are being employed in the maintenance of their equipment.
5. On the impact of office equipment on productivity, it was observed that when the equipment are adequate, it motivates workers to put in their best.
6. It was also discovered that modern office equipment brings job commitment to workers in an organization; this was confirm by the respondents in Delta State University of Science and Technology, Ozoro.
7. Accordingly, inadequate equipment hinders the performance of the workers in Delta State University of Science and Technology, Ozoro.

Discussion of Findings

From interpretation identified in this study, it is clear that availability of office equipment as positive effects on workers' productivity.

Office equipment are provided adequately for employees in Delta State University of Science and Technology, Ozoro so as to motivate them, increase their knowledge in order to put in their best to ensure maximum productivity.

Majority of the respondents indicates that there is availability of modern office equipment in most of the offices in Delta State University of Science and Technology, Ozoro, it therefore indicates that the management do purchase office equipment to make job easy for their workers.

The respondents also indicate that the availability of office equipment in Delta State University of Science and Technology, Ozoro as help the workers to reduce stress as these equipment help them to perform their job faster.

The study also revealed that office equipment increased the knowledge of workers who are making use of that equipment. Workers are more exposes as they make use of modern office equipment in carrying out their duties daily.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

Summary

The study investigates the availability of office equipment and its effect on organizational productivity in Delta State University of Science and Technology, Ozoro. To identify modern office equipment that is available in Delta State University of Science and Technology, Ozoro. To determine whether workers achieve maximum production from the use of the office equipment in Delta State University of Science and Technology, Ozoro. To find out the problems associated with the procurement and maintenance of office the office equipment in Delta State University of Science and Technology, Ozoro. To find out the impacts of office equipment on the productivity of workers in Delta State University of Science and Technology, Ozoro.

These were with a view to investigating the availability of office equipment and its effect on organizational productivity in Delta State University of Science and Technology, Ozoro.

The study had four research questions raised from stated purpose. The research questions raised were: What types of office equipment are available in Delta State University of Science and Technology, Ozoro? Do workers achieve maximum production from the use of office equipment in Delta State University of Science and Technology, Ozoro? What are the problems encountered in procurement and maintenance of office equipment in Delta State University of Science and Technology, Ozoro? How does the provision of adequate office equipment enhance productivity of workers in Delta State University of Science and Technology, Ozoro?

The research design employed was the survey design. A total of 130 copies of questionnaire were administered to the staff of Delta State University of Science and Technology, Ozoro and 100 copies of the questionnaire were retrieved representing 77% return rate and these were used for the analysis and interpretation of the data. The questionnaires were analyzed using simple percentage method. The findings were presented and recommendations were made.

The result revealed that modern types of office equipment are generally in use in Delta State University of Science and Technology, Ozoro. The Senior staff, Junior staff and Management staff of Delta State University of Science and Technology, Ozoro stated that they can now carryout their functions faster than previously done. i.e with the aid of the available modern office equipment.

Availability of modern office equipment generally motivates the staff of Delta State University of Science and Technology, Ozoro to put in their best.

Conclusion

Based on the data analysis and the findings made, the following conclusion have been drawn:

The types of equipment in Delta State University of Science and Technology, Ozoro tells the worth of the institution, therefore, for the University to remain successful and be able to compete favorable with other institution, it should stick firmly to the modern types of equipment.

Workers achieved larger production only when there is adequate modern office equipment to work with and this will reduce fatigue and increase productivity and in return Delta State University will gain maximum efficiency.

The trained personnel within the Delta State University of Science and Technology, Ozoro are not employed to service and maintain the procured equipment by management as these do not save cost and time.

The machines have great impact on workers' productivity such; it motivates workers to put in more effort when the machinery are adequate and also enhances the performance and productivity of workers.

Recommendation

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

1. The modern machines are the one that are agreed to be used in today's office therefore, Delta State University of Science and Technology, Ozoro should strive to employ skillful workers to use these machines effectively and considerably to guide against unnecessary breakdown of equipment.
2. In view of the fact that the independent services company is employed to service the machines rather trained personnel within Delta State University of Science and

Technology, Ozoro. Hence, the management should ensure of training their staff on how to maintain modern office equipment, to be more professional and they should be loyal by putting in their best and to see that they see that they see that they save time and cost.

3. Effort should be made by the management to see that they have adequate knowledge about the equipment they are about to purchase otherwise, employ the services of those that can purchase the equipment with little or no problem.
4. The adequate office equipment, motivate workers to put in more effort and the inadequate ones hinders the inflow of transaction in Delta State University of Science and Technology, Ozoro, therefore, the University should see that their equipment are always adequate and they should guide against any measures that will lead to its responsibility.

Limitations of the Study

In the course of carrying out this research work, some problems were encountered by the researcher. The major limitation to the success of this work is financial constraint, the cost involved in searching and browsing for the materials as well as typesetting the project work.

There is also problem of locating the respondents and their uncooperative attitudes in giving an honest and genuine answer to the questionnaire administered to them. Another challenge is time factor because it was not easy for the research to combine the load of the research work with other academic work, such as assignment and test, etc.

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APPENDICES

Department of Office Technology and Management,
School of Information and Communication Technology,
Auchi Polytechnic,
Auchi'

20th October, 2022.

Dear Respondent,

LETTER OF INTRODUCTION

I am a final year (HND) student of the above institution embarking on a research work title “**Availability of Office Equipment and It’s Effect on Office Workers Productivity in Delta State University of Science and Technology, Ozoro**”. This is in partial fulfillment of the award of Higher National Diploma (HND) in Office Technology and Management.

I am therefore, soliciting your help in providing answer to the questions in the attached questionnaire to enable me complete my study. I will be grateful if you provide the necessary answers as desired. Be rest assured that any information given will be strictly confidential and used solely for academic purpose.

Thank you.

Yours faithfully,

OSARUMWENSE, E. Grace

Instructions:

- i. Kindly read the questions before expressing your opinion.
- ii. In the sections, you are expected to tick (x) in the space provided for your response.

QUESTIONNAIRE

Section A: Demographic of Respondents

1. Age: 20-30 Years () 31-40 years () 41-50 () 51 years and above ()
2. Sex: Male () Female ()
3. Marital Status: Single () Married ()
4. Educational Qualification: WAEC/NECO () ND/NCE () HND/BSc ()

- MSc/PhD ()
5. Length of Service: 1-5 Years () 6-11 () 11-16 Years 16 Years and above ()

Section B

Key:

SA = Strongly Agree
 A = Agree
 D = Disagree
 SD = Strongly Disagree

S/N	Statement	SA	A	D	SD
	What types of office equipment are available in the institution				
1.	The office is stuffed with the electronic types of equipment e.g. computer, scanner, photocopies etc.				
2	The modern types of office equipment are generally in use in all the office.				
3	Communication equipment is available in the institution				
4	Internet facilities are available in the institution				
	Do workers achieve maximum production from the use of office equipment in the institution				
5	The availability of office equipment reduce fatigue and increases productivity				
6	Workers can now do things faster than before				
7	Information can easily be stored in computer instead of files				
8	With the use of modern office equipment add more knowledge and skills to the users				
	What are the problems encountered in procurement and maintenance of office equipment in the institution				
9	Modern office equipment are expensive to purchase and installed				
10	Office equipment are expensive to maintain				
11	Qualified engineers are expensive to hire for the maintenance of office equipment				
12	Engineers who maintain office equipment in the institution are not staff of the institution				
	How does the provision of adequate office equipment enhance productivity of workers in the institution				
13	Modern office equipment increase productivity of workers				
14	Office equipment brings job satisfaction to workers in the institution				

15	Modern office equipment brings job commitment to workers in the institution				
16	Office equipment reduce stress and increase job effectiveness				