COMPUTERIZATION OF FIXED ASSETS MANAGEMENT AND CONTROL IN AN ORGANIZATION.

(A CASE STUDY OF INTERCITY BANK PLC).

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MINNA.

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CERTIFICATION

I certify that this work was carried out by ***OLASUPO AJANI OLADOTUN***, under my supervision.

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.....	.....
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DEDICATION

This work is dedicated to my wife :

UCHENNA CHRISTINE OLASUPO.

ACKNOWLEDGEMENT

I have to thank God Almighty for His infinite mercies, abundant blessings and good health given to me throughout this programme and during the period of collating this project work.

Special thanks to my project supervisor, Prince Abdulrasheed Badmus, who despite of his tight schedule in office, spare out his valuable time to ensure that this research work is carried out successfully and to a logical conclusion. I thank you for your patience and understanding.

I wish to use this opportunity to thank my lecturers for their support and encouragement during this programme most especially Prince Abdulrasheed Badamus, Mr. Kola Raimi and Professor K.R. Adeboye.

My sincere appreciation goes to my colleagues in office for their understanding and support during the entire period of this programme, I cherish and love you all.

Finally, I wish to acknowledge my colleagues - Aluta continua.

ABSTRACT

Fixed Assets Accounting seeks to record transactions involving acquisition of Items or materials called : "FIXED ASSETS", which are not meant for resale in the ordinary course of organizations' business except on liquidation or winding up.

These Fixed Assets are put into business use in order to generate revenue or income for the organization who owns them. Therefore there is need for proper Management of such Assets in other to avoid undue wear and tear through usage.

Consequently, most business organization co-ordinates the management of Fixed Assets through the use of Fixed Assets Register in a bind form and appropriate amortization carried out monthly through depreciation accounting.

Due to this monthly routine task of calculating depreciation, addition or disposal of assets being done manually makes it tedious, especially in large business concerns - Blue chip multi-national companies, the needs for automation arises.

It is expected that at the end of this project work, manually done Fixed Assets management would be fully automated, thereby leading to a greater efficiency, accuracy and timely routine reports of thus tedious task.

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CHAPTER ONE

1.1 INTRODUCTION

Fixed Asset Accounting is a means whereby all Fixed Assets purchased by an organization is being accounted for in the books and records of such organization.

Due to the tedious task involves in manual accounting system, and the expansion of business with acquisition of additional fixed for operational needs gives rise to look for an alternative means of accounting for fixed assets in an organization.

In order to safe much time used in manual accounting and enhance accuracy and efficiency, the use of Computer programs for this tedious task is being developed.

1.2 BACK GROUND OF STUDY

This study was necessitated by the advent of Computer Technology and its subsequent application in the commercial business that brings a great challenge and change to every organization.

The current problems associated with accounting for fixed assets manually, and the quest for a lasting solution through an automating system to ensure greater efficiency, accuracy and timeliness of reporting the accounting system.

1.3 PURPOSE OF STUDY

The main central objective of this project work is to critically examine the problems of Fixed Asset Management in order to produce a program that would eliminate or reduce the boredom and tedious task associated with manually done fixed asset accounting system.

1. 4 SCOPE AND LIMITATIONS

The study is a generalized one which span across all business concern without being limited to a particular sector of the Economy.

1. 5 SIGNIFICANCE OF STUDY

At the end of this research work it is expected that the study will accomplish the desired objectives of enhancing efficiency and guarantee accuracy and correctness of Fixed Assets Management and its control.

Also, it is expected that man-hour lost through the existing manual system will be used in the other areas of operations that required attention.

1.6 DEFINITION OF TERMS

COMPUTERIZATION :- Computerization is the process of changing a manual processing system into an automated process through the use of Computer machine.

FIXED ASSETS:- These are the properties or materials acquired by an organization for the purpose of using them to generate revenue or income.

MANAGEMENT:- This is the process of keeping and maintaining acquired fixed assets in an organization.

CONTROL : Control is standard set up by management of an organization for acquisition and disposal of fixed assets.

ORGANZATION: Organization is any establishment set up for economic purposes, e.g. Educational Institutions, Banks, Manufacturing companies, Government ministries etc.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 HISTORICAL BACKGROUND OF INTERCITY BANK PLC.

Intercity Bank PLC was originally promoted by the Niger State Government and incorporated on April 27, 1987 as a Private Limited Liability Company to undertake Commercial Banking Operations.

Banking Licence was granted to the Bank by the Central Bank of Nigeria on October 28, 1987, and full Commercial Banking operations commenced a year after, that is, on October 28, 1988, with special focus on Treasury activities- *(ICB PLC Annual Report & Accounts- Chairman Statement) – 1990.*

In order to secure a successful take off of the Bank, a three year Technical Management Agreement was entered into with First Bank of Nigeria PLC.

However, this was prematurely terminated and replaced with a similar contract With International Merchant Bank PLC, (IMB) in December,1990.

The agreement with IMB was initially made to span within three years, but renewed for another two years which was to terminate in December, 1995.

Through these arrangement, the Bank has got access to experienced professionals from older and well established financial institutions. A management succession plan drawn up in 1993 was carried out not only conclusively but also successfully.

OWNERSHIP STRUCTURE

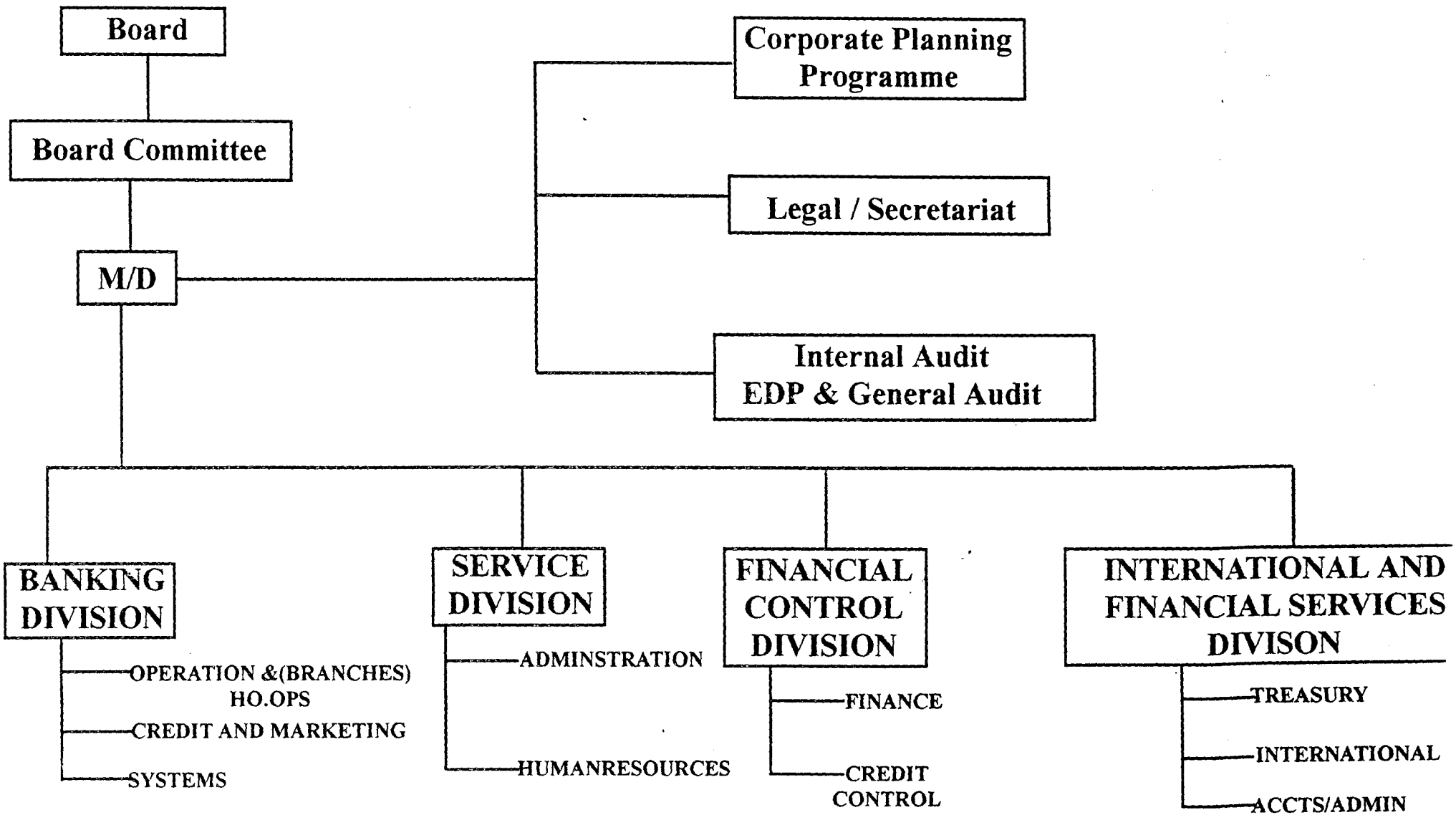
Intercity Bank PLC was initially promoted by Niger State Government, the Bank's shareholding structure has changed over the years such that currently the promoter has become a minority owner. Recently, the Bank has joined the league of Banks quoted on the Stock Exchange Market through its public issue of share which was over subscribed.

The paid up share capital of the Bank as at June, 1998 was N 510.0m while the total shareholders funds amounted to N552.0m.- (Annual Reports & Accounts)-1998.

MISSION STATEMENT

Intercity Bank mission is to provide efficient commercial banking services for the benefit of our customers, shareholders and society at large, using the modern means of transactions processing - Electronic Data processing equipment (Computers).

INTERCITY BANK PLC - ORGANISATIONAL CHART



BUSINESS STRATEGY

As a small, growing institution, the bank has been building its competitive strength through investments in people, system and operational resources.

Business-wise, a generic strategy of differentiation in service quality and cost control is being pursued. These are being achieved through a strong branch network across the country.

FUNCTIONS :

1. **BOARD:**

The Board is the apex decision taking body of the bank, comprising of the Board of Directors which is headed by the chairman.

2. **MANAGING DIRECTOR :**

The managing Director/Chief Executive Officer who serves as a Resident Director, also heads the top management team who are responsible for the day to day running of the Bank and reports to the board on matters concerning the affairs of the Bank

The functional departments that report to and serve as integral part of the managing director's office are:

(a) **Corporate Planning/Promotions**

The office is headed by the Executive Assistant to the managing director. The functions or duties of this department are:

- Business development /Marketing
- Variance Analysis/Budget
- Feasibility Reports/Branch network expansion
- Research
- Corporate Affairs Functions.

(b) **Legal / Secretariat:**

The department is to function as the Bank's Legal adviser/Company secrtary.

(c) **Internal Audit:**

The department is to function in Electronic Data Processing (EDP) audit and general audit.

3. **BANKING DIVISION:**

The banking Division is responsible for the general banking operations of the Bank. The functional department under this division are:

(a) **Operation Department:**

This department shall oversee the activities of all branches and the Head Office Operations (Kaduna).

(b) **Credit and Marketing Department:**

The primary responsibility of this department is Credit approvals and the marketing of Bank's services.

(c) **System Departments**

4. **SERVICES DIVISION:**

This division is responsible for the human resources engagement/training and general administration services.

5. **FINANCIAL CONTROL DIVISION:**

This division has the following functional departments:

(a) **Finance Department:**

The department performs the following functions:

- Management of financial reports
- Consolidation and rendition of all statutory returns
- Monitoring of clearing balances and liquidity positions
- Inter-branch reconciliation
- MICR Cheques Control/Issue

(b) **Credit Control Department:**

This department is responsible for loan documentation and disbursements. Also responsible for loans review, classification and recovery.

(c) **Inter-branch Reconciliation Unit**

6. **INTERNATIONAL AND FINANCIAL SERVICES DIVISION:**

The division has three functional departments as stated below:

(a) **Accounts and Administration Department:**

The functions of this department are :

- Book keeping for Treasury/Inland correspondent Banking and International departments.
- Co-ordinate Clearing
- Accounts and Maintain records for:
  - Domiciliary Accounts
  - Treasury Dealings
  - Foreign Operations
  - Payments/Receipts
  - Reconciliation of Statements

(b) **Treasury/Inland Correspondent Banking Department:**

This department handles all domestic Treasury activities, maintain and manages relationship with other Banks and Discount Houses.

(c) **International Department:**

The International department performs the following functions:

- Effect foreign remittances.

- Manages offshore accounts.
- Test messages in conjunction with Victoria Island Branch – Lagos.
- Receive offshore statement/advice through the office of the MD/CEO.
- Handles Inland and Outward documentary credits and bills for collection.
- Handles domiciliary accounts.

2.3.0 ACCOUNTING FOR FIXED ASSETS

2.3.1 FIXED ASSETS:

Fixed Assets are termed as the properties or items own by the business, which are put into day to day operations in the ordinary course of the business to generate profit or income.

These type of assets are not for resale in the ordinary line of business.

2.3.2 COST OF FIXED ASSETS

The cost of a new fixed asset is the purchase price plus all other expenses incurred in bringing the fixed assets into the business premises for its operational use.

2.3.3 FIXED ASSETS REGISTER

This is the register being used in recording the information about the existence of a fixed assets in the organization.

The information that needs to be recorded in the register comprises of:

a) Date of purchase

b) Initial cost (i.e. purchase price plus all other expenses incurred in bringing it to the business premises).

c) Rate of depreciation

d) Monthly depreciation

e) Revaluation cost (if any in the subsequent future date)

f) Disposal value at the end of the useful life of the Fixed Asset.

g) Re-capitalization cost (if any).

2.3.4 DEPRECIATION OF FIXED ASSETS

Depreciation can be defined as the permanent and continuing diminution in the quality, quantity or value of an Asset.- **Frank Wood (1989).**

The chief agents or causes of depreciation are:

i) Wear and tear

ii) Physical factors: Evaporation of liquids, erosion, dampness, loss of potency of acid.

iii) Obsolescence, due to invention or change in technology generally, especially the millennium bug in Global Computer Technology.

iv) Fall in market price

v) Effluxion of time

Depreciation of Fixed Asset is necessary in business, as it serves as a way of providing in advance for the replacement of such fixed asset at old age.

This provisions is always charged to profit and loss account of the business.

2.4.0 PROCEDURES FOR DEPRECIATION OF FIXED ASSETS:

There are many ways or procedures for depreciation of fixed assets.

2.4.1 STRAIGHT LINE METHOD

By this method the original or initial cost less the estimated residual value, divided by the estimated number of years of useful life, is the annual depreciation charge, the amount thereof being equally divided for each year.-**Pickles . W. (1974)**

The advantage of this method is its simplicity and the fact that it entirely eliminates the assets where no residual value will ensue by the end of its life.

Although it is often quoted as a disadvantage that the early years should be charged with the same depreciation as the later years.

However, this method has been judicially recommended where, for the purpose of computing an employees enumeration based on a share of profit, depreciation of fixed assets should be calculated on the straight line method.

CALCULATION OF STRAIGHT LINE METHOD

The procedure for calculation of the depreciation of fixed asset is as follows:

$$\textbf{Depreciation} = \frac{C - R}{N}$$

Where: **C** = Cost of the asset

R = Residual value or disposable value of asset

N = Useful life of the asset in years

For example:

Lets assume a motor vehicle is purchased at cost of #2,500,000.00.

Life span of the vehicle is 5 years.

Residual value of #50,000.00

$$\text{The annual depreciation} = \frac{C - R}{N}$$

$$= \frac{\#2{,}500{,}000.00 - \#50{,}000.00}{5}$$

$$= \#490,000.00$$

2.4.2 DIMINISHING BALANCE METHOD

A fixed percentage is written as the diminishing balance of the asset account yearly.

The chief advantage over straight line method is that the charges in relation to the opening and closing years of the assets account are more scientifically provided for; the depreciation charge of the earlier is heavier than the later years.

For example, a motor vehicle is purchased at a cost of #1,800,000.00; having useful life of 3 years with depreciation rate of 331/3%.

Using the Diminishing balance method, annual depreciation figures of the vehicle is given below:

FIRST YEAR DEPRECIATION:

#1,800,000.00 x 331/3% = #599,999.40

SECOND YEAR DEPRECIATION:

#1,800,000.00 - #599,999.40 x 331/3% = #399,999.80

THIRD YEAR DEPRECIATION:

#1,800,000.00 - #599,999.40- #399,999.80 x 331/3% = #266,666.00

2.4.3 VALUATION METHOD

Under this system, the assets are being revalued in line with the assessment of the professional valuers at the end of each year.

The difference between the opening value at the beginning of the year and the closing value at the end of the year is charged as depreciation.

The disadvantage factor of this method is that the valuation is usually unscientific because it is based on value judgement of the professionals.

PROCEDURE FOR CALCULATION OF DEPRECIATION – UNDER VALUATION METHOD:

Depreciation = Opening Balance - Closing Balance

Lets assume that the opening balance of an asset is #250,000.00,and

The closing balance is obtained as #200,000.00.

Therefore the depreciation figure will be established as:

#250,000.00 - #200,000.00 = #50,000.00 for the year.

There are other methods of depreciation such as annuity method, sinking fund method and Insurance Policy method which are considered to be outside the scope of this research work.

Whatever method is adopted by any organization the following principles are fundamental.

a) Assets with certain possible exceptions e.g. Land, antiques etc. suffer depreciation, although the process may be invisible or gradual.

b) The provision for depreciation is charge against the profit.

c) Maintenance of assets in a state of efficiency is not a substitute for the depreciation provision.

d) The question of replacement of an asset is incidental to but not a fundamental question of depreciation.

Finally, it is suffice to state that the project work will lay emphasis on straight line method of depreciation as the basis of the program development in modular pattern.

CHAPTER THREE

3.0 SYSTEM ANALYSIS AND DESIGNS

3.1 ANALYSIS OF THE EXISTING SYSTEM

The majority of Business organizations operates their Fixed Assets System purely on manual operations.

The procedure involve were exhaustively discussed in chapter two of this work, but suffice to mention that, Fixed Asset Management system is the process of accounting for existence and usage of Fixed Assets for a given period of time.

3.2 PROBLEMS OF THE EXISTING MANUAL SYSTEMS

The following are the identifiable problems with the existing manual system:

i) Computations are always error

ii) A lot of time and energy is wasted in preparation of Fixed Assets Register, schedule monthly depreciation etc

3 INPUT SPECIFICATION

Num.	Field Name	Field Type	Width	Decimal	Index
1.	Name	Character	20		N
2.	Code-Number	Character	10		N
3.	Location	Character	20		N
4.	Category	Character	40		N
5.	Description	Character	30		N
6.	Value	Numeric	10	2	N
7.	Month	Character	3		N
8.	Date	Date	8		N
9.	D-per	Numeric	3	0	N
10.	Balance	Numeric	10	2	N
11.	Total – Dep.	Numeric	10	2	N
12.	Dep.	Numeric	10	2	N

3.4 OUT PUT SPECIFICATIONS

The proposed program consist of five major parts, these are:

- **REGISTRATION:** It handles the registration of the Name of Assets; Date of purchase; Category of Assets; Code Number (if any); full description of assets and initial capital cost.

- **UPDATE RECORD:** This handles the monthly update of the assets by pop on update option to get the category of assets, date, code-number and depreciation percentage.

- **DELETION:** This option handles the deletion of any assets, and it has all elements available under registration option.

- **REPORT:** The reports generated from this option are three types; namely:

  Report on depreciation of individual asset in each category of Asset,

  Report on total provision of Fixed Asset ,and

  Finally summarize report of Fixed Assets schedule.

- **EXIT PROGRAM**: It terminates the execution of the application system and return to DOS prompt or Data Base Management System.

3.5 SYSTEM DESIGN

The system is presented in modular form with the main menu consisting of options for programs on Fixed Assets Management System.

The programs such as Registration, Update record, Deletion, Report and Exit program are well structured to enhance timeliness and efficiency.

3.6 SOURCE PROGRAM DOCUMENTATION

The modules are referenced by the main system menu. The program is designed using DBASE IV software. To run this program, run DBASE IV and to go the dos prompt by pressing ESC key plus Y key on loading the program.

From the dos prompt, type DO ASSETS and press Enter, this takes you to the main system menu. The main menu enables you to enter your choice code. The option is chosen by pop on the required option, and to return back to main menu, press ESC key.

At the end of the day activities on Fixed Assets Management System; press ESC key to return to Dot prompt, and at the dot prompt type Quit to go back DOS prompt.

Each of the options is described below:

- **REGISTRATION:** This routine creates; Name of Assets, Date of purchase, Category of Assets, Code Number, Full Description of Assets and Initial Capital Cost.

- **UPDATE RECORDS:** This routine implements update of the assets at any particular time, taking into consideration the;
  - Category of Asset
  - Code Number
  - Percentage of Depreciation

- **DELETION:** The routine implements the deletion of any asset and creates the following items;
  - Name of Assets
  - Date of Purchase

- Code Number
- Full Description of Assets
- Initial cost.

- **REPORT ROUTINE**: This routine creates three different reports:

Report 1 - Report on Depreciation of individual Assets in each category of Assets. Stating, Name, Code-Number, and Depreciation.

Report 2 -Report on provision for depreciation of each assets category.

Report 3 -Report on total summary of Assets and the schedule at the end of the month.

3.7 LIMITATIONS AND CAPABILITIES OF THE PROGRAM

The program handles all works efficiently and perfectly if correct data are keyed in. Wrong input data will generate wrong output, just as the saying goes; Garbage in Garbage out (**GIGO**).

When in trouble go back to main menu and begin the process again.

The program has the capability of storing large volume of records, this is possible by using DBMS, which helps in managing the data base files.

Also, the program is adaptable to any organization.

3.8 COST IMPLICATION AND BENEFITS THEREOF

COST: It is estimated that hardware and software requirement will cost #120,000.00 and system implementation and instillation is estimated at #55,000.00 given the total cost of #175,000.00

BENEFITS: If the program is installed and implemented:

a) It removes stress associated with manual management of Fixed Assets in any organization.

b) Time can be saved for more profitable ventures.

c) Accurate and efficient management of register of fixed assets and records.

d) Production of timely and accurate report on fixed assets.

CHAPTER FOUR

4.0 SYSTEMS IMPLEMENTATION

Developed system are implemented and operated by users who obtain support and guidance from the systems Department of the Bank.

The task of management is then to see to a smooth transition of the system into operational state and thereafter maximize the benefits from the implemented system by working with the users to monitor operations and adjust its performance.

However, implementation could be referred to as the transition of a system from development stage to live usage.

4.1 WORKSTATION REQUIREMENT

4.1.1 HARDWARE REQUIREMENT

In order to meet the desired objectives, that is the computerization of Fixed Assets Management, it is proposed that it be run on:

1. Pentium 200 system processor with 16 MB RAM on board with 2.5 B HDD, the system should also have CD - ROM drive and 3.5 drive.
2. Novelle 3.11 plat form

4.1.2 SOFTWARE REQUIREMENT

The system should be run on DBASE IV or any other data Base management software like Clipper 5.0; which can handle all difficult complications associated with large volume of Data thereby making Fixed Assets Management a worth while experience.

4.2 SYSTEM TESTING

Before implementation and acquisition of the required Hardware and software, the program will be loaded and test run for a month, to ascertain its efficiency and accuracy and where necessary make modifications.

4.3 SYSTEMS CHANGEOVER

File conversion is sometimes under estimated. File conversion is the process of converting the old file data into the form compatible for the new system.

It is referred to as part of change over, in fact, file conversion is a complete and separate system task in itself, involving fact finding, analysis, the design of clerical methods and computer process among others.

The changeover from the old to the new system takes place when:

- The system has been proven to the satisfactory of the systems analyst and all other implementation activities have been completed.

- User Managers are satisfied with the result of the system tests, staff training and reference manuals.

- The target date for changeover is due.

4.4. TRAINING

Training of the personnel that will use the installed software will be done in-house to minimize cost. The category of staff to be trained are those in both Head Office Operations (Lagos and Minna) and all the Bank Branches.

4.5 SYSTEM MAINTENANCE

In many data systems processing, the efforts spend on maintaining a system exceeds all the efforts spent in the earlier phases of developing the system.

Maintenance gradually becomes more important as an organization becomes more matured in its use of computers and begins to proliferate information system in its various functions.

CHAPTER FIVE

5.0 SUMMARY

5.1 CONCLUSION

Computerization can be expressed as a planned and articulated change from a manual system to an automating system. Computers were introduced to various organization for some reasons which include but not exhaustive to:

i) To enhance efficiency of service by reducing administrative cost avoiding data duplication and offering greater management control and accountability.

ii) To improve the speed and efficiency in collection, manipulation, storage, reporting and dissemination of data.

iii) Automating Fixed Asset Management and control in Intercity Bank PLC is designed to eliminate boredom and stress associated with manual accounting for fixed assets.

The new system will also help to maintain all records on autonomous basis due to its updating nature; all records are updated automatically and kept into a master file so as to have a quick reach of any record needed at any time on request.

It also enables management to have access to information on Fixed Assets when required for decision making processes.

We are in dynamic world of getting into the new millennium, so also is the technology, therefore it is expected that the work can be improved upon in the nearest future to make it more versatile and meet the ever changing needs in Intercity Bank Plc.

5.2 RECOMMENDATION

The recommendations listed below are made to ensure that the program achieve the set objectives.

i. All Fixed Assets purchased must be given code numbers and registered to their appropriate category to ensure easy data capturing into the system

ii. The depreciation method should be on straight line basis.

iii. Updating of the Assets Register must be done by a competent superior officer.

iv. Reconciliation exercise should be carried out promptly.

v. To ensure that optimal results are reaped from this program, a competent officer should operate the Fixed Assets Management.

REFERENCES

1. ***Akin Fapohunda*** - *Understanding and Using Micro Computers Publisher – Aflon Ltd, Abuja , 1st Edition. Pg 140-151*

2. ***Allan Simpson*** - *Understanding dbase IV 1.1- Publisher – Tech Publications – Singapore . 1990 . 1st Edition, Pg 3-8.*

3. ***Ashton Tate Corporation*** - *Programming with dbase IV - 1988. 1st Edition – Pg 1-10 5.1-3, & 4. 7-10*

4. ***Ayo C.K.*** - *Computer Literacy – Publisher – Alanukitan Commercial Press (Nig.) Ltd, Egbe, Kogi State. 1st Edition, Pg 145-149.*

5. ***Frank Wood*** - *Business Accounting 2, Published Pitman – London – 1990, 5th Edition, pg 185.*

7. ***Prince R.O. Badmus*** - *System Analysis And Design (Lecture Notes – 1997) FUT- Minna, Unpublished.*

8. ***Accountancy*** - *William Pickles, 4th Edition, Pg 702,703 & 713.*

```
*THE MAIN PROGRAM

CLEAR
*DO INTRO
SET STATUS OFF
SET TALK OFF
SET SCOREBOARD OFF
SET ECHO OFF
SET DATE TO BRIT
DO HEADER

DEFINE MENU CHOICES;
MESSAGE "CHOOSE AN OPTION;
Press Esc to return to main menu"
DEFINE PAD REGPAD OF CHOICES;
PROMPT "REGISTRATION" AT 10,2
DEFINE PAD UPDATEPAD OF CHOICES;
PROMPT "UPDATE RECORD" AT 10,19
DEFINE PAD DELETEPAD OF CHOICES;
PROMPT "DELETION" AT 10,38
DEFINE PAD REPORTPAD OF CHOICES;
PROMPT "REPORT" AT 10,50
DEFINE PAD EXIT OF CHOICES;
PROMPT "EXIT PROGRAM" AT 10,60

DEFINE POPUP REPORTPOP FROM 12,50
DEFINE BAR 1 OF REPORTPOP PROMPT "REPORT1"
DEFINE BAR 2 OF REPORTPOP PROMPT "REPORT2"
DEFINE BAR 3 OF REPORTPOP PROMPT "REPORT3"

ON SELECTION PAD REGPAD OF CHOICES;
DO REGPRO
ON SELECTION PAD UPDATEPAD OF CHOICES;
        DO  UPDATEPRO
ON SELECTION PAD DELETEPAD OF CHOICES;
DO DELETEPRO
ON SELECTION PAD REPORTPAD OF CHOICES;
ACTIVATE POPUP REPORTPOP
ON SELECTION PAD EXIT OF CHOICES;
DO CLEANUP

ON SELECTION POPUP ALL DO PROCEED
ACTIVATE MENU CHOICES
```

```
*PROCEDURE PROCEED
PROCEDURE PROCEED
DO CASE

  CASE POPUP() = "REPORTPOP"

IF BAR() = 1
        DO REPORT1
      ENDIF
      IF BAR() = 2
        DO REPORT2
      ENDIF
      IF BAR() = 3
        DO REPORT3
      ENDIF
  ENDCASE
RETURN

*PROCEDURE REGPRO
PROCEDURE REGPRO
CLOSE DATABASES
CLEAR
DO WHILE .T.
 CLEAR
 @3,25 TO 5,55
 @4,30 SAY 'REGISTRATION OF ASSETS'
 @6,1 TO 22,75 DOUB
 SELEC 1
 USE ASSETS
 STORE SPACE(15) TO MFILE
 STORE SPACE(15) TO MFILES
 STORE SPACE(15) TO MNAME

STORE SPACE(20) TO MCODE_NUM
 STORE SPACE(40) TO MCATEGORY
 STORE SPACE(30) TO MDESCRIPT
 STORE 0.00 TO MVALUE
 STORE CTOD("  /  /  ")  TO MREGDATE
 @7,5 SAY 'NAME OF ASSET:' GET MNAME
 READ
```

```
IF UPPER(MNAME) = SPACE(15)
 CLEAR
 RETURN
 ENDIF

 LOCATE ALL FOR UPPER(MNAME) = UPPER(NAME)
 IF  FOUND()
  CLEAR
  @13,35 SAY  'SORRY, ASSET ALREADY EXIST '
  CLEAR
  LOOP
 ENDIF

  STORE MNAME TO MFILE
  STORE MNAME TO MNAME
  store LTRIM(TRIM(upper(mfile))) + '.dbf' to mfiles
  store LTRIM(TRIM(upper(mfiles))) to mfiles

sele 1
  copy stru to &mfiles fields
code_num,value,category,descript,regdate,depdate,d_per,dep,total_dep,balance

  select 2
  use &mfiles
  go top
  DO DISPLAY1
  READ

  SELEC 1
  APPEND BLANK
  REPLACE NAME WITH MNAME
  REPLACE REGDATE WITH MREGDATE
  REPLACE CODE_NUM  WITH MCODE_NUM
  REPLACE VALUE WITH MVALUE
  REPLACE CATEGORY WITH MCATEGORY
  REPLACE DESCRIPT WITH MDESCRIPT

ANS = ' '
  DO WHILE .NOT. ANS $'YYNn'
  @23,13 SAY 'MORE RECORD ? (Y/N ):' GET ANS
  READ
  ENDDO
```

```
IF UPPER(ANS) = 'Y'
     LOOP
  ENDIF

   IF UPPER(ANS) = 'N'
  CLEAR
  EXIT
  ENDIF
  ENDDO
CLEAR
DO HEADER
CLOSE DATABASES
RETURN

*PROCEDURE DISPLAY1
PROCEDURE DISPLAY1
@7,5 SAY 'NAME OF ASSETS:' GET MNAME
@7,45 SAY 'DATE:' GET MREGDATE
@11,5 SAY 'CATEGORY:' GET MCATEGORY
@15,5 SAY 'CODE NUMBER:' GET MCODE_NUM
@19,5 SAY 'FULL DESCRIPTION OF ASSETS:' GET MDESCRIPT
@21,5 SAY 'INITIAL CAPITAL COST:' GET MVALUE PICT '9,999,999.99'
RETURN

*PROCEDURE UPDATEPRO
PROCEDURE UPDATEPRO
CLOSE DATABASES
STORE ' ' TO REPLY
DO WHILE .T.
 CLEAR
 @3,25 TO 5,55
 @4,30 SAY 'UPDATE OF ASSETS'
 @6,1 TO 22,75 DOUB
 SELE 1
 USE ASSETS

 STORE 0 TO MD_PER
 STORE 0.00 TO MDEP
 STORE 0.00 TO MTOTAL_DEP
 STORE 0.00 TO MBALANCE
 STORE 0.00 TO MVALUE
 STORE CTOD("  /  /  ")  TO MDEPDATE
 STORE SPACE(15) TO mname,mfile,mfiles
  @7,5 SAY 'name:' GET mname
```

```
  READ
    STORE MNAME TO MFILE
    store LTRIM(TRIM(upper(mfile))) + '.dbf' to mfiles
    store LTRIM(TRIM(upper(mfiles))) to mfiles

IF .NOT. FILE('&mfiles')
   ??CHR(7)
   CLEAR
  @15,15 say 'The file '+ upper(mfiles) +' does not exist!'
  @17,15 say 'Press any key to exit'
  wait ''
  clear
  return
  ENDIF
    select 2
    use &mfiles
    DO DISPLAY2
     READ

     sele 1
    LOCATE FOR UPPER(NAME) = UPPER(MNAME)
    IF FOUND()
     K = (MDEPDATE -REGDATE)/30
     REPLACE DEP  WITH ((MD_PER/100)*VALUE) * K
     REPLACE TOTAL_DEP WITH  TOTAL_DEP + DEP
     REPLACE  BALANCE  WITH  VALUE - TOTAL_DEP
     REPLACE DEPDATE WITH MDEPDATE
     REPLACE D_PER WITH MD_PER
     STORE TOTAL_DEP TO MTOTAL_DEP
     STORE VALUE TO MVALUE
     STORE DEP TO MDEP
   ENDIF

sele 2
     APPEND BLAN
     REPLACE DEP  WITH MDEP
     REPLACE TOTAL_DEP WITH   MTOTAL_DEP
     REPLACE  BALANCE  WITH  MVALUE - TOTAL_DEP
     REPLACE DEPDATE WITH MDEPDATE
     REPLACE D_PER WITH MD_PER
     REPLACE VALUE WITH MVALUE
```

```
 ANS = ' '
 DO WHILE .NOT. ANS $'YyNn'
  @23,13 SAY 'MORE RECORD ? (Y/N):' GET ANS
  READ
 ENDDO
     IF UPPER(ANS) = 'Y'
    LOOP
 ENDIF

  IF UPPER(ANS) = 'N'
 CLEAR
 EXIT
 ENDIF
 ENDDO

CLEAR
DO HEADER
CLOSE DATABASES
RETURN
*PROCEDURE DISPLAY2
PROCEDURE DISPLAY2
@7,60 SAY 'DATE:' GET MDEPDATE
@17,5 SAY 'PERCENTAGE DEPRECIATION(%):' GET MD_PER
RETURN

*PROCEDURE DELETE RECORD
PROCEDURE DELETEPRO
CLOSE DATABASES
STORE ' ' TO REPLY
DO WHILE .T.
 CLEAR
 @3,25 TO 5,55
 @4,30 SAY 'DELETION OF ASSETS'
 @6,1 TO 22,75 DOUB
 USE ASSETS
 STORE SPACE(15) TO MNAME
 STORE SPACE(20) TO MCODE_NUM
 STORE SPACE(40) TO MCATEGORY
 STORE SPACE(30) TO MDESCRIPT
 STORE 0 TO MVALUE
```

```
 STORE CTOD("  /  /  ")  TO MREGDATE,MDEPDATE
 @7,5 SAY 'ENTER CODE NUMBER:' GET  MCODE_NUM
 READ
 IF UPPER(MCODE_NUM) = SPACE(20)
  CLEAR
  RETURN
 ENDIF
LOCATE ALL FOR UPPER(MCODE_NUM) =UPPER(CODE_NUM)
 IF FOUND()
   STORE  NAME  TO MNAME
   STORE  MCODE_NUM TO  MCODE_NUM
   STORE  CATEGORY  TO MCATEGORY
   STORE  DESCRIPT TO MDESCRIPT
   STORE  VALUE TO  MVALUE
   STORE  REGDATE  TO MREGDATE
   DO DISPLAY1
   CLEAR GETS
   @23,15 SAY 'DELETE THIS RECORD ? (Y/N):' GET REPLY
   READ
   IF UPPER(REPLY) = 'Y'
     DELETE
     PACK
   ENDIF

 ELSE
  CLEAR
  @13,35 SAY 'INVALID CODE NUMBER'
  WAIT ' '
  CLEAR
 ENDIF
  ANS = ' '
 DO WHILE .NOT. ANS $'YyNn'
   @23,15 SAY 'MORE RECORD TO DELETE ? (Y/N):' GET ANS
   READ
 ENDDO
  IF UPPER(ANS) = 'Y'
                  LOOP
     ENDIF
     IF UPPER(ANS) = 'N'
   CLEAR
   EXIT
  ENDIF
ENDDO
```

```
CLEAR
DO HEADER
CLOSE DATABASES
RETURN

*PROCEDURE REPORT1
*DEPRECIATION OF INDIVIDUAL ASSETS IN A CATEGORY FOR EACH
MONTH
PROCEDURE REPORT1
SET CLOCK OFF
CLEAR
CLOSE DATABASES
STORE CTOD("  /  /  ") TO CATE_DATE
mcate_val = 0.00
mcate_tdep = 0.00
mcate_bal = 0.00
mcate_net = 0.00
STORE SPACE(40) TO MCATEGORY

DO WHILE .T.

 mcate_val = 0.00
 mcate_tdep = 0.00
 mcate_bal = 0.00
 mcate_net = 0.00
 CLEAR
 @1,4 SAY 'REPORT ON DEPRECIATION OF  ASSETS  BASED ON
CATEGORY: '
  STORE SPACE(40) TO MCATEGORY
  @5,5 SAY 'ENTER THE CATEGORY:' GET MCATEGORY
   READ

IF UPPER(MCATEGORY) = SPACE(40)
  CLEAR
  RETURN
  ENDIF
    USE  ASSETS
   GO TOP
   LOCATE ALL FOR  (CATEGORY) = UPPER(MCATEGORY)
```

```
    IF FOUND()
     @1,62 SAY UPPER(MCATEGORY)
     @2,5 SAY 'AS AT :'
     @2,12 SAY MDY(DEPDATE)
     @5,5 SAY '                                                    '
     @6,1 SAY '------------------------------------------------------------------------'
     @7,1 SAY ' NAME    | CODE NUMBER |  COST   | DEP.   | TOTAL
DEP. | BALANCE'
     @8,1 SAY '------------------------------------------------------------------------'
     R = 9
     DO WHILE .NOT. EOF()
       R = R + 1
       @R,2 SAY  NAME
       @R,17 SAY CODE_NUM
       @R,30 SAY VALUE
      @R,45 SAY DEP
       @R,53 SAY TOTAL_DEP
       @R,65 SAY BALANCE
       STORE DEPDATE TO CATE_DATE
   r=r+1
   CONTINUE
  ENDDO
  ELSE
   CLEAR
      @13,35 SAY 'INVALID CATEGORY NAME'
      WAIT ' '
      CLEAR
     ENDIF
locate all for category = upper(mcategory)
 if found()
  sum value to mcate_val for  category = upper(mcategory)
  sum total_dep to mcate_tdep  for category = upper(mcategory)
  sum balance to mcate_bal  for category = upper(mcategory)
  continue
 endif
 mcate_net = mcate_val - mcate_tdep
 use general
 go top
 locate all for category = upper(mcategory)
if found()
 replace category with mcategory
 replace cate_val with mcate_val
 replace cate_tdep with mcate_tdep
 replace cate_bal with mcate_bal
```

```
 replace cate_net with  mcate_net
 replace depdate with cate_date
else
 append blan
 replace category with mcategory
 replace cate_val with mcate_val
 replace cate_tdep with mcate_tdep
 replace cate_bal with mcate_bal
 replace cate_net with  mcate_net
 replace depdate with cate_date
endif

ANS = ' '
 DO WHILE .NOT. ANS $'YyNn'
   @23,15 SAY 'MORE REPORT ? (Y/N):' GET ANS
   READ
 ENDDO
  IF UPPER(ANS) = 'Y'
          CLEAR
                  LOOP
     ENDIF
  IF UPPER(ANS) = 'N'
  CLEAR
  EXIT
  ENDIF

ENDDO
CLEAR
DO HEADER
CLOSE DATABASES
RETURN

*REPORT2
*INDIVIDUAL REPORT
PROCEDURE REPORT2
CLOSE DATABASES
SET CLOCK OFF
CLEAR
DO WHILE .T.
 CLEAR
 STORE SPACE(15) TO MNAME
 @7,5 SAY 'name:' GET mname
 READ
```

```
 IF UPPER(MNAME) = SPACE(15)
 CLEAR
 RETURN
  ENDIF
   STORE MNAME TO MFILE
   store LTRIM(TRIM(upper(mfile))) + '.dbf' to mfiles
   store LTRIM(TRIM(upper(mfiles))) to mfiles

 IF .NOT. FILE('&mfiles')
  ??CHR(7)
  CLEAR
 @15,15 say 'The file '+ upper(mfiles) +' does not exist!'
 @17,15 say 'Press any key to exit'
 wait ''
 clear
 return
 ENDIF

 select 2
 use &mfiles
 go top
 @5,5 SAY 'NAME OF ASSET IS  '
 @5,24 SAY UPPER(MFILE)
    @6,1 SAY  '-------------------------------------------------------------------------'
    @7,1 SAY  ' DATE     |  COST    |  PER.(%) |  DEP.    |  TOTAL DEP. |
BALANCE'
    @8,1 SAY '-------------------------------------------------------------------------'
 R = 9
    DO WHILE .NOT. EOF()
     R = R + 1
     @R,2 SAY  DEPDATE
     @R,12 SAY VALUE
     @R,31 SAY D_PER
     @R,40 SAY DEP
     @R,50 SAY TOTAL_DEP
     @R,63 SAY BALANCE
IF r = 22 .AND. .NOT. EOF()
rep=' '
do while .not. rep $ 'MmxX'
  @ 23,22 SAY 'Press -M- to view more data OR -X- to exit' get rep
read
enddo
```

```
      IF UPPER(rep)='X'
        USE
        CLEAR
        RETURN
       ENDIF
         r=9
      ENDIF
      r=r+1
      SKIP
      ENDDO
       ANS = ' '
       DO WHILE .NOT. ANS $'YyNn'
         @23,15 SAY 'MORE REPORT ? (Y/N):' GET ANS
         READ
       ENDDO
        IF UPPER(ANS) = 'Y'
              CLEAR
                    LOOP
          ENDIF
          IF UPPER(ANS) = 'N'
        CLEAR
        EXIT
       ENDIF
      ENDDO
      CLEAR
      DO HEADER
      CLOSE DATABASES
      RETURN

      *General report: categories
      Procedure report3
           close databases
           set clock off
           clear
do while .t.
use general
go top
@2,5 SAY 'FIXED ASSETS SCHEDULE AS AT  '
@2,35 SAY MDY(DEPDATE)
@4,1 SAY '-------------------------------------------------------------------'
           @5,1 SAY ' CATEGORY     | COST   | TOTAL DEP. | BALANCE    |
      NET BALANCE  '
           @6,1 SAY '-------------------------------------------------------------------'
           R = 7
```

```
 DO WHILE .NOT. EOF()
@R,2 SAY  UPPER(CATEGORY)
      @R,16 SAY CATE_VAL
      @R,28 SAY CATE_TDEP
      @R,42 SAY CATE_BAL
      @R,55 SAY CATE_NET

IF r = 22 .AND. .NOT. EOF()
rep=' '
do while .not. rep $ 'MmxX'
  @ 23,22 SAY 'Press -M- to view more data OR -X- to exit' get rep
read
enddo

IF UPPER(rep)='X'
  USE
   CLEAR
  RETURN
 ENDIF
   r=7
 ENDIF
r=r+1
SKIP
ENDDO

 ANS = ' '
 DO WHILE .NOT. ANS $'YyNn'
   @23,15 SAY 'VIEW AGAIN ? (Y/N):' GET ANS
   READ
 ENDDO
  IF UPPER(ANS) = 'Y'
         CLEAR
                LOOP
     ENDIF
       IF UPPER(ANS) = 'N'
  CLEAR
  EXIT
 ENDIF
 ENDDO
CLEAR
DO HEADER
CLOSE DATABASES
RETURN
```

```
*PROCEDURE CLEANUP
PROCEDURE CLEANUP
RELEASE POPUPS REPORTPOP
QUIT
RETURN

PROCEDURE HEADER
 SET CLOCK ON
 @1,59 SAY 'TIME:'
 SET CLOCK TO 1,65
 @5,15 TO 7,60 PANEL
 @6,16 SAY '    FIXED ASSETS MANAGEMENT SYSTEM'
RETURN
```