

**COMPUTER APPROACH TO AUDITING PROCESS IN
A BANKING ENVIRONMENT
(A CASE STUDY OF WEMA BANK PLC).**

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APPROVAL PAGE

This project work has been read and approved by the undersigned, as meeting the requirements of the Department of Mathematics /Computer Science, Federal University of Technology, Minna.

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DEDICATION

This Project is highly dedicated to my beloved Wife – Mrs felicia Olawumi Owolabi and my Children for their endurance and moral Support given to me during the cause of my study.

May the Lord bless you all.

My Employer, I thank you for the time and other concern. To my wife and Children, you have all been wonderful. We miss each other particular on weekends when I had to move for my studies. Your prayers, love and concern are all appreciated. To my parents, may the good Lord bless you always.

To others, you have all been wonderful God bless you all.

ABSTRACT

Users of an information system require reliable information from it Managers, shareholders and those who might want to buy shares are very concerned that the information system of their bank can be both efficient and effective. Audits evidence performed evaluates the reliability, efficiency and effectiveness of the financial statement. The report presented at the Annual General Meetings, that decide if the bank is progressing or regressing is determined by the accountability of the audit report.

An audit priority with respect to computer based system is the availability of the frequent printout for review or the ability to obtain such printouts on demand.

To achieve the stated view, a Database IV Programming Language will be used. This is in view of its vast features i.e. Vast amount of information can be stored, manipulated and retrieved with speed and efficiency.

TABLE OF CONTENTS

TITLE PAGE-----	i
TITLE PAGE-----	ii
APPROVAL PAGE-----	iii
DEDICATION-----	iv
ACKNOWLEDGEMENT-----	v
ABSTRACT-----	vi
TABLE OF CONTENTS-----	vii

CHAPTER ONE

1.0 BACKGROUND OF AUDITING-----	1
1.1 DEFINITION OF AUDITING -----	2
1.2 TYPES OF AUDITING-----	3
1.3 AIMS AND OBJECTIVES-----	3
1.4 METHODOLOGY-----	4
1.5 DEFINITION OF TERMS-----	5

CHAPTER TWO

2.0 WHY AUDITING?-----	7
2.1 AN AUDITOR-----	7
2.2 TYPES OF AUDITOR-----	8
2.3 RIGHT & DUTIES OF AN AUDITOR-----	9
2.4 OPERATIONAL STANDARDS & GUIDELINES-----	11

2.5	AUDIT REPORT-----	12
2.6	INTERNAL CONTROL SYSTEM-----	12
2.7	TECHNIQUES OF AUDIT TESTING-----	14
2.8	TYPES OF AUDIT TESTING-----	15
2.9	PROBLEMS OF EXISTING SYSTEM-----	16
2.10	EFFECT OF COMPUTER PROCESSING-----	17
2.11	USING COMPUTERS IN AUDIT WORK-----	18

CHAPTER THREE

3.0	SYSTEMS ANALYSIS & DESIGN-----	21
3.1	INTRODUCTION-----	21
3.2	FEASIBILITY STUDY-----	21
3.3	TESTING PROJECT FEASIBILITY-----	22
3.4	WHY COMPUTERISED AUDITING SYSTEM-----	23
3.5	CURRENT ASSETS VERIFICATION-----	24
3.6	BANK BALANCES AND LOANS-----	25
3.7	LIABILITY VERIFICATION-----	26
3.8	VERIFICATION PROCEDURES-----	27
3.9	SYSTEM CONVERSION-----	28
3.10	COST AND BENEFITS ANALYSIS-----	29

CHAPTER FOUR

4.0	SOFTWARE / PROGRAM DEVELOPMENT /IMPLEMENTATION	31
4.0	INTRODUCTION-----	31
4.1	CHOICE OF LANGUAGE-----	31
4.2	FEATURES OF LANGUAGE CHOSEN-----	31
4.3	THE FILE CONTROL-----	31
4.4	INPUT SPECIFICATION-----	32
4.5	OUTPUT SPECIFICATION-----	32
4.6	REVIEW AND MAINTENANCE-----	32
4.7	TRAINING-----	33
4.8	HARDWARE REQUIREMENTS-----	34
4.9	SOFTWARE REQUIREMENTS-----	34
4.10	SECURITY MEASURES-----	34
4.11	STARTING THE PROGRAM-----	35

CHAPTER FIVE

5.0	SUMMARY, CONCLUSION AND RECOMMENDATIONS-----	38
5.1	SUMMARY-----	38
5.2	RECOMMENDATIONS-----	38
	REFERENCES-----	41

PROGRAM LISTING

OUTPUT LISTING

CHAPTER ONE

INTRODUCTION TO AUDITING

1.0 BACKGROUND OF AUDITING

Stewardship is the name given to the practice by which productive resources owned by one person or group of persons are managed by another person or group of persons. This has occurred throughout history. For example, in the ages great landlords would not manage their own land but would appoint persons called steward to manage the land. Today most business is operated by limited companies that are owned by their shareholders and managed by the directors appointed by the shareholders. Similarly, the public owned central Government resources including the nationalized industries but they are managed by the government and persons appointed by the government.

Ownership who appoint managers to look after their property will be concerned to know what has happened to their property. Today the process whereby the managers of a business account or report to the owners of their business is called stewardship Accounting. This reporting and accounting is usually done by means of financial statements. Financial statements can take many forms. The best known is the profit and loss accounts and Balance sheet of business. In the specific case of limited companies, financial statements are produced annually and take the form of an Annual reports and accounts.

The problem that has always existed when managers report to the owner is the

question "can the owner believe the report"? The solution to this problem of credibility in reports and account lies in appointing an independent person called an Auditor to investigate the report on his findings.

A further point is that modern companies can be very large with multi-national activities

The preparation of the account of such groups is very complex involving the bringing together and summarizing of accounts of subsidiaries with differing conventions, legal systems and accounting and control system.

1.1 DEFINITION OF AUDITING .

Auditing can be defined as a systematic process of objectively obtaining and evaluating evidence regarding assertions about economic actions and events to ascertain the degree of correspondence between those assertions and established criteria and communicating the results to interested users.

Points to note from the definition:

- a. A systematic process connotes a logical, structured and organized series of step or procedures.
- b. Objectively obtaining and evaluating evidence means examining the bases for the assertions and judiciously evaluating the results.
- c. Assertions about economic actions and events comprise the assertions of information contained in financial statement internal operating reports and tax returns.

belief in them

2. To prevent and detect errors and fraud that might occur or contained in the financial statements.
3. To provide spin-off effects. The auditor will be able to assist his clients with an accounting systems, taxation and make suggestions to improve controls and achieve greater operating efficiencies within the clients organization.
4. Ensuring that the financial statements help to assure the user of efficiency of the financial markets by limiting the life of inaccurate information or deterring its dissemination.
5. It prevents error and fraud by the deterrent and moral effect of the audit

1.4 METHODOLOGY

The methodology generally applied in this work include:-

- (a) Recalculation involves the recalculation of calculations previously performed by the client. They are either right or wrong.
- (b) Observation and Examination which involve physical inspection of tangible assets to provide compelling evidence of existence, condition and valuation.
- (c) Confirmation involves confirmation by direct correspondence with independent parties.
- (d) Verbal enquiry is a procedure that generally involves the collection of oral evidence from independent parties and client.

- (e) Examination and Documents-This involves a great deal of documentary evidence and examination of authoritative parties and by then client.
- (f) Scanning-This is the process the auditors exercise their general alertness to unusual items and events in documentation.

1.5 DEFINITION OF TERMS

(1) AUDIT:

A Systematic examination of the activities and status of an entity based primarily on investigation and analysis of its systems, controls and records.

(2) INTERNAL AUDIT:

This refers to an independent appraisal function established within an organisation to evaluate its activities as a source to the organisation.

(3) EXTERNAL AUDIT

A periodic examination of books of account and records of an entity carried out by an independent third party (i.e. the auditor).

(4) AUDITOR

An independent person who is appointed to investigate the organisation, its records and the financial statements prepared from them.

(5) COMPUTER

A machine that follows instruction in order to process data, solve a specific problem or accomplish a particular task.

(6) INTERNAL CONTROL

The Internal Control System consist of the policies and procedures established to provide reasonable assurance that specific organisation objectives will be achieved.

(7) VOUCHER

These are documents that contain records of items of expenditure or receipt on it.

(8) TRIAL BALANCE

This is used to test the arithmetic accuracy of the ledger.

(9) COMPLIANCE TEST

This is a test an auditor carries out in order to determine the effectiveness of Internal Control in Operation as a basis for the preparation of the accounts. The computerised auditing system adopts the compliance test in evaluating the effectiveness of the systems.

CHAPTER TWO

2.0 WHY AUDITING?

The shareholders and users of financial statements look to the auditor reports for assurance that the financial statements are free from any problem that has always existed when management reports to the owner. It is true the owner might find it difficult to believe the management report because of the following reasons:

- a. Their reports may contain errors that are committed intentionally.
- b. The reports may contain fraud that may involve the use of deception to obtain an unjust or illegal financial advantage.
- c. The reports can be inadequate or deliberately misleading by containing intentional misstatements, omissions of amount or disclosures from an entity's accounting records or financial statements.
- d. The report may fail to disclose relevant information.

2.1 WHO IS AN AUDITOR?

The auditor should be an independent person who is appointed to investigate the organization; its records and the financial statements prepared from them and thus form an opinion on the accuracy and correctness of the financial statements. The examination of such accounts by independent experts trained in the assessments of financial information is of benefit to those who control and operate such organizations as well as to owners and outsiders.

2.2 TYPES OF AUDITOR

INDEPENDENT AUDITORS:

These are individual practitioners or members of public accounting firm who render such professional auditing services to their clients.

EXTERNAL AUDITORS

It is a legal obligation for an organisation or institution to engage the services of an External Auditor for the purpose of carrying out an audit assignment of the organisation to the end that an opinion may be expressed.

INTERNAL AUDITOR

These are individuals engaged in an organisation who is an employee and he/she is involved in an independent appraisal activity called internal auditing.

QUALITIES REQUIRED OF AN AUDITOR

An auditor needs to possess the following qualities:

1. Independence-an auditor cannot give an unbiased opinion unless he is independent of all the parties involved. Total independence is impossible in that the auditor receives his fees from the client. Not only must the auditor be independent in fact and in attitude of mind, but he must also be seen to be independent.
2. Competence- an auditor must be thoroughly trained and prove his competence before he can sign an audit report. Parliament has decreed that only members of certain professional bodies can become auditors of limited companies.

For Example, the Institution of Chartered accounts and Chartered Association of

2.4 AUDITING OPERATIONAL STANDARDS AND GUIDELINES

Auditing standards prescribe the basic principles and practice that the auditors are expected to follow in the conduct of an audit they apply wherever an audit is carried out. The auditing operational standard issued by Auditing Practice Board (APB) in April 1980 are as follow:

- (i) Planning, controlling and recording the auditors should adequately plan, control and record his work.
- (ii) Accounting system- the auditor should ascertain the system of recording and processing transactions and assess its adequately as a basis for the preparation of the financial statements.
- (iii) Audit evidence-the auditor should obtain relevant and reliable audit evidence to enable him to draw reasonable conclusions therefrom.
- (iv) Internal control-if the auditor wishes to place reliance on any internal control, he should ascertain and evaluate those controls and perform compliance test on their operation.
- (v) Review of financial statements-the auditor should carry such a review of the financial statement as is sufficient, in conjunction with the conclusions drawn from the other audit evidence obtained, to give human reasonable basis for his opinion on the financial statements.

Auditing guidelines are intended to assist the auditor by giving guidance on procedures by which auditing standards may be applied and the application of auditing standards to specified items appearing in the financial statement of the

Procedures include checking the arithmetic accuracy of the records, the maintenance and checking of totals, reconciliation, control accounts, trial balances, accounting for documents sometimes known as sequence checks etc.

6. **PERSONNEL**- Procedures should be designed to ensure that personnel operating a system are competent of a system depends upon the competence and integrity of the operating personnel.

7. **SUPERVISION**- all actions by all levels of staff should be supervised. The responsibility for supervision should be clearly laid down and communicated to the person being supervised.

8. **MANAGEMENT**- these are controls excised by management which are outside and over and above the day to day routine of the system. The control include overall supervisory controls, review of management accounts, comparisons with budgets, internal audit and any other review procedures.

2.7 TECHNIQUES OF AUDIT TESTING

The operational audit guidelines on the audit evidence give four categories of auditing test techniques:

a. **INSPECTION**- reviewing or examining of records, documents or tangible assets Examples are

- ◆ Examining a sample of piecework records for evidence of inspection by inspection staff and approval by the works manager gives evidence of compliance with the system presented.

- ◆ Examining copy sales invoices for initial of the member of staff charged with checking invoices calculations, give evidence of compliance with a system that prevents calculation errors.

B. **OBSERVATION**-looking at an operation or procedure being performed by others with a view to determining the manner of its performance e.g observing the giving out of wage packages to see that internal procedures are adhered to or observing the counting of stock at the year end.

C. ENQUIRY- seeking relevant information from knowledgeable persons inside or outside the enterprises, whether formally or informally, orally or in writing. Examples are routines queries of clients staff such as “why is invoice copy 645missing” and circulating debtors.

2.8 TYPES OF AUDIT TESTING

Audit testing are generally classified into certain categories namely:

COMPLIANCE TEST

This seeks to provide audit evidence that internal control procedures are being applied as required. This is usually carried out by the organisation’s employees who perform an Internal Audit function.

FINANCIAL STATEMENT AUDITS

This involves obtaining and evaluating evidence about an organisation statements for the purpose of expressing an opinion on whether they are presented in conformity with the established criteria.

OPERATIONAL AUDIT

This involved obtaining and evaluating evidence about an organisation's operating activities in relation to specified objectives.

SUBSTANTIVE TESTS

These tests seek to provide audit evidence as to the completeness, accuracy and validity of the information contained in the accounting records. This test seeks direct evidence of the correct treatment of a transaction, a balance, assets, a liability or any item in the accounts.

2.9 PROBLEMS OF THE EXISTING SYSTEM

In view of the defects of the manual auditing system which include:

Less accuracy in manual system due to poor recording system.

Low speed processing in manual auditing system.

Poor repetitiveness in manual auditing system as financial statements such as Profit and loss account, balance sheets and Trial Balance are produced for clients Daily, weekly or bi-monthly.

Poor handling of large volume of data in terms of stationeries and cards which are Cumbersome and subject to lost or disappearance.

COMPARISON BETWEEN COMPUTERISED AND MANUAL AUDITING SYSTEM

The nature and volume of data involved i.e for small organisation where the number

of data provided are small, the information required are usually not much. But if the size of the organisation increased in terms of data, material and human resources, the need for the use of computer is inevitable.

- (a) Accuracy: The need for accuracy in the computed results whether manual or electronic of any auditing system cannot be over emphasized. It should be noted that once data are correctly programmed, the computer can be relied upon for considerable accurate results.
- (b) Repetitiveness: As financial statement i.e. Profit and Loss Account and Balance Sheet are produced for clients or organisation daily, weekly and monthly, doing it manually can be unpleasant and tiresome.
- (c) The computer can however be relied upon to repeat a processing cycle as many times as required without the fear of tiredness
- (d) Speed: Computer process data at a very fast speed. The larger computer actually process millions of instructions per second which of course is an incredible speed compared to a manual approach.

2.10 EFFECT OF COMPUTER PROCESING

When computers are used to process accounting transactions it affect the organisational structure and it influence the procedures and techniques used to accomplish the broad objectives of Internal Controls. The following characteristics distinguished computer processing from manual processing:-

(1) POTENTIALS ERROR AND IRREGULARITIES

Less human involvement in handling transactions processed by computers can reduce the potential for observing errors and irregularities. Most errors of irregularities made in design often remain undetected for long period of time.

(2) UNIFORM PROCESSING OF TRANSACTION

Computer processing uniformly subjects like transactions to the same processing instructions. Hence elimination of the occurrence of random errors, normally associated with manual processing and computerised processing.

(3) TRANSACTION TRAIL

This is a chain of evidence provided through coding, crossing-references and documentation connecting account balances and other summary result with the original transactions and calculations.

(4) POTENTIAL FOR INCREASE MANAGEMENT

Supervision: Computer systems offer Management a wide variety of tools that may be used to review and supervise the operations of the organisation. The availability of these additional controls may enhance the entire system of internal control on which auditors may place reliance.

2.11 USING COMPUTERS IN AUDIT WORK

Under a manual accounting system, every transaction is recorded in the book of accounts. Under these conditions, the auditor could trace every transaction from initiation to the end having a clear paper audit trail.

In Electronic systems audits are carried out using two main approaches:

Audit “around” the computer

Audit “through” the computer

AUDIT “AROUND” THE COMPUTER

This has the obvious advantage of not requiring any knowledge of how to unravel a flowchart or a program listing. This approach owes much of its simplicity and familiarity to the auditors. Its major weakness lies in the failure to assess the processing system. Data input controls may be absent or inadequate while vital system controls against fraud may be missing. Furthermore, processing may be done in an inefficient and costly ways.

These are deficiencies in the system that the auditor should be able to spot. The around the computer approach may be suitable for audits made during the initial phases of a computer changeover and for some low-volume, uncomplicated systems.

AUDITING “THOROUGH” THE COMPUTER

Following the complexity and diversification of computerized accounts, there was the need to review the computer controls to ascertain whether the computer system incorporates adequate internal controls: whether the controls form part of the operational system during implementation, and whether they have not been invalidated by any subsequent amendments. Auditing through the computer, therefore, can be defined as accessing processing, testing, analysing and reporting

electronic data in their electronic state with the objective of ensuring that it conforms to specifications and is valid.

CHAPTER THREE

3.0 SYSTEMS ANALYSIS AND DESIGN

3.1 INTRODUCTION

The purpose of an audit is to give the investors and readers of financial statements confidence that these statements are a reasonable representation of the truth of transactions that transpired and that these transactions entered into were of the nature and yielded the benefits as anticipated by the organisational objectives. Therefore, the auditor reports whether in his own opinion, the statements show a true and fair view of the state of affairs of the organisation concerned.

The systems analyst tries to examine what the current system is, what remedy to apply as to correct the situation. Also analysis the current procedure and designing the most efficient and economics systems or procedures that will better accomplish the given tasks within an organisation.

3.2 FEASIBILITY STUDY

Feasibility study which is also know as preliminary investigation is to determine whether or not the proposed project is desirable.

The objective of this study include providing answers to the following questions.

- (a) What is being done? i.e this is to critically examine the pesent system of audit and associated problems.
- (b) What is required and why? i.e this will address the system that is being proposed as alternative to the present system.

- (c) The cost and benefit of the proposed system and alternative approaches.

However, the investigation aspect at this point should answer these question concerning the project:

- a. What is the objective of the Project?
- b. What specifically difficulties are expected?
- c. What is the problem generally?

Concerning the computer, the following questions should be answered:-

- a. Is it feasible to do the work on the computer?
- b. What staff problems will it give rise to?
- c. Are other problems involved?
- d. Is it worthwhile doing the work on the computer?

3.3 TESTING THE PROJECT FEASIBILITY

There are three main aspects of testing the project feasibility.

These are:

- a. Operational Feasibility
- b. Technical Feasibility
- c. Economical Feasibility

OPERATIONAL FEASIBILITY.

This is concerned with workability of the proposed system when developed and installed. In determining this, it is based on facts discovered during investigation

stage.

TECHNICAL FEASIBILITY

This test clarifies if the proposed project can be carried out with current equipment, existing software, existing hardware/software and human ware on ground to enable the system take-off effectively.

ECONOMIC FEASIBILITY

The test of financial feasibility is undertaken to asses cost of implementing a proposed project vis-à-vis the benefit to be derived in implementing the project.

There is much desire to automate the organisation as indicated by the management.

This is with the view to correct errors of the past and the desire to move forward in the area of information technology.

3.4 WHY COMPUTERISED AUDITING SYSTEM

There is the need for a computerized auditing system to be developed due to the following reasons:

- a. High accuracy of computation. Once the right or correct data have been keyed, the computer will process the data according to the instruction and produce accurate results.
- b. Computer processed data at a very fast speed.
- c. Computerized auditing system can be relied upon for repetitiveness of processing cycle as many times as required without the fear of tiredness.
- d. Computerized Auditing System do not take time where data for financial

statements are required at irregular or unpredictable intervals.

- e. Computerized auditing system is needed in handling a large volume of data processing.
- f. High degree of accuracy and timeliness
- g. Better and adequate Management information system.

3.5 CURRENT ASSETS VERIFICATION

Current assets are generally those assets that can be expected to provide benefits (within one year). Under current assets verification we have Debtors and Bank and Loans.

DEBTORS

Debtors form a large item among the asset companies and verification is essential.

The general method of verifying Debtors is:

- a. Determine the system of internal control over sales and debtors.

The system for debtors should ensure that:

- only bonfire sales bring debtors into being
- all such sales are to approved customers
- all such sales are recorded
- ones recorded, the debtors are only eliminated by receipt of cash or on the authority of the responsible official.
- Debts are collected promptly
- Balances are regularly reviewed and agreed, a proper system for

follow up exist and, if necessary adequate provisions for bad doubtful debts is made.

BANK BALANCES AND LOANS

Verification of bank balances is affected:

- a. Appraisal of the internal control system
- b. Examination and investigation of the bank reconciliation, noting particularly that all UN-cleared cheques have been cleared after and lodgment credited after date, but actually paid in before date.
- c. Tittle should be verified by the direct confirmation from the bank. The bank must have the permission of the client to do this. The bank letter is usually on a standard form and opportunity is usually taken to ask the bank a number of questions at this same time.
- d. Value is not usually an issue with bank account. Particularly as banks are now regulated. However, the bank of credit and commerce internal matter has shown that value must not be taken for granted. The auditor must always consider if the bank is in a good standing. The bank letter is independent audit evidence of high quality. It is used for obtaining evidence of existence, amount, ownership and proper custody of numerous assets and of existence and amount of liabilities. A standard letter should be sent, form has been agreed with the banks.

Loans are not usually material assets of company other those whose business it is to

make loans.

A. Loans other than to directors- their verification will be:

1. Examine and evaluate internal control. Authority is particularly important.
2. Obtain a schedule and test its accuracy
3. Obtain certificate direct from debtors.
4. Examine agreement and ensure terms are being adhered to.
5. If a loan is guaranteed, examine the statutes of the guarantor.

3.7 LIABILITY VERIFICATION

They fall into two major groups, current liabilities and long term liabilities.

The basic distinction between current and long-term liabilities is that current liabilities are due within one year (e.g. notes payable, account payable salaries payable unearned revenue etc.) The long reflects liabilities that would be paid later than a year after the balance sheet date (e.g. mortgage payable bond payable and capital account etc.)

The balance sheet will contain many liabilities grouped under various headings. The headings may include:

1. Share capital
2. Reserves
3. Creditors - amount falling due after more than year
 - Debentures

- Bank loans and over drafts
 - Payments received on account
 - Trade creditors
 - Bills of exchange payable
 - Amount owned to group companies
 - Amount owed to related companies
 - Other creditors including taxation and social security
 - Accruals and deferred taxation
4. Provisions for liabilities and charges
- Pensions and similar obligation
 - Taxation, including deferred taxation
5. Creditors - amount falling due with one year as in listed above
6. Contingent liabilities - incorporated by note only.

The auditor's duties are three folds viz:

- a. To verify the existence of liabilities shown in the balance sheet
- b. To verify the correctness of the money amount to of such liabilities.
- c. To verify that all -existing liabilities are actually included.

3.8 VERIFICATION PRODUCERS

It is not possible to detail the procedures for verifying all possible liabilities.

However, some general principles can be discerned, and these should be applied according to the particular set of circumstances met with in practice.

These are:

- A Schedule- Request or make schedule for each liability or class of liabilities. This should show the make up of the liability with the opening balance, if any, change, and the closing balance.
- b. cut-off- verify cutoff. For example a trade creditor should not be included unless the goods were acquired before the year.
- c. Reasonableness- consider the reasonableness of the liability. Are the circumstances ought to excite suspicion.
- d. Internal control - Determine, evaluates and tests internal control procedures. This is particularly important for trade creditors.
- e. Previous date clearance- Consider the liability at the previous accounting date. Have they all been cleared?
- f. Terms and condition - This applies principally to loans. The auditor should determine that all items and condition agreed when accepting a loan have been complied with.

3.9 SYSTEM CONVERSION

There are three main methods of changing over to a new system. These are:-

- (1) Parallel Approach:- Here the old and new System are run Concurrently using the same inputs. The outputs are compared and reasons for differences resolved. Outputs from the old system continue to be distributed until the new system has proved satisfactory. At this point, the

old system is discontinued and the new one takes its place.

(2) Direct or One to One Approach:- The old system is discontinued altogether and the new system becomes operational immediately. This approach is good for small and simple project. The cost is low but very risky.

(3) Piecemeal Approach:- This is a method whereby changing to a new system is done gradually until the desired result is installed in other parts of the bank gradually.

Based on the above approaches, the parallel method is recommended.

This is where the old system and the new system run concurrently.

3.10 COST AND BENEFITS ANALYSIS

<u>1. OPERATING COST</u>	N	K
Supplies (Stationery, Diskettes)for 1 year	250,000=00	
Equipment Maintenance (1 year)	150,000=00	
Program Maintenance	50,000=00	
Four (4) operators at N7,000 per month for 1 year	336,000=00	
Utilities	50,000=00	
Air Conditioners (2½HP)	150,000=00	
Miscellaneous Expenses	50,000=00	
	<hr/>	
	N1,036,000=00	

2. DEVELOPMENT COST

Systems Analysis and Design for

4 weeks at N15,000=00 60,000=00

Software Development 50,000=00

Personnel Computers (4) 400,000=00

2 printers (LaserJet 6L) 100,000=00

Stabilizer/UPS (1.25KVA) 75,000=00

Training 100,000=00

Miscellaneous 50,000=00

N835,000=00

Grand Total = O/P+D/C = N1,871,000=00

BENEFITS OF THE PROPOSED SYSTEM

The benefits to be derived is enormous and such benefits include:-

- a. It will save time and cost
- b. Fast and quick means of data processing and information
- c. Reduction in storage space for files and file cabinet.
- d. Better access, privacy, confidentiality continuity and audibility.
- e. A more effective and result oriented audit department with enhanced data integrity.
- f. Better management information system for the bank.

CHAPTER FOUR

4.0 SOFTWARE/PROGRAM DEVELOPMENT/IMPLEMENTATION

4.0 INTRODUCTION

This is the stage of Program development and implementation when the conceptional requirement of the new system and the overall objectives are to be transformed into physical reality. This stage is very important because it is the most crucial stage in achieving a successful new system.

4.1 CHOICE OF LANGUAGE

The programming language used for this project is Dbase IV.

Dbase IV is database management system, a powerful tool for managing data, this means that vast amount of information can be stored, related, manipulated and retrieved with speed and efficiency.

4.2 FEATURES OF LANGUAGE CHOSEN

- (1) It provides a full relational database environment to users.
- (2) Data can be verified automatically as they are entered into field, up to 255 field can be specified per record.
- (3) Pop - up menus and windows can be designed.
- (4) It has a large number of memory variables, user - defined functions up to 99 files can be opened at a time.

4.3 THE FILE CONTROL

1 auditing an Electronic Data Processing System, it will be formed that much

reliance is normally placed within the system, upon standard forms and documentation. However strict adherence is placed on procedures laid down. It is important that the auditor should ensure that an audit control file be built as part of the working papers.

However, the following should be included in the audit control file:-

- a. Copies of all forms of source documents, details of checking carried out to ensure their accuracy should be part of the working papers.
- b. Full description of how the source documents are to be converted into input media, the checking control procedures.
- c. The auditor's own comments on the effectiveness of the control.

4.4 INPUT SPECIFICATION

In terms of accuracy the data that are to be input into the system must be validated to ensure that decisions are made with the information obtained from accurate data, which implies that the information should reflect the current situation.

Also with the aid of computer, a large volume of data which involves sorting, updating information and merging of data could be done without much stress. This is because of the ability of the computer to perform repetitive tasks which makes things easier.

4.5 REVIEW AND MAINTENANCE

These are basically vouchers and other related documents in the organisation. This include: Analysed Bank Schedules, Periodic Reports produced on quarterly or yearly

basis and other relevant vouchers.

4.6 REVIEW AND MAINTENANCE

The system will need to be reviewed and maintained periodically due to the following reasons:

- a. To deal with unforeseen problems arising from operation
- b. To confirm that planned objectives are being met and to take corrective action if they are not.
- c. Adaptability of the software to the environment must also be ensured. Users must also be to cope with the new system.

While maintenance of the software will normally be the responsibility of the programmer who ensures that the package is always in good working order or condition. Necessary precautions should be taken to uphold the integrity of the program.

4.7 TRAINING

With the new System in place, there must be an employee, who stands as the operator or data entry personnel. This person and the Chief Auditor have to be given some induction course on the usage of the system, though they were involved in the design of the system.

The training include familiarizing and getting the user acquainted with the operation and fundamental steps in using the new system. The training is better

done in house, since the organisation can effectively handle such training program. It is very important that such a training be coupled with the documentation of the system programs as rightly provided.

4.8 HARDWARE REQUIREMENTS

For the purpose of this project the hardware required is the IBM 8100 Mini-Computer because of its Multi-tasking use such as its ability to perform many tasks simultaneously, makes it more preferable to the organization. Besides, it has greater memory storage capacity, greater processing speed and more versatile and flexible. Other items include Floppy Disk Drive of 3.5 or 5.25, Standard Keyboard, Monitor, Laser Jet (6L Model) or Dot Matrix and a Stabilizer or UPS (2000VA)

4.9 SOFTWARE REQUIREMENTS

- a. System Software Ms-Dos 6.0 Version
- b. Application Software - Dbase IV /FOXPRO/CLIPPER
- c. TEXT EDITOR (MS-DOS).

4.10 SECURITY MEASURES

Computer Systems Security encompasses the Security of all the information assets that constitute the system. It should be noted that if hardware fails then the information system has failed. Therefore, adequate measures should be taken regarding both the Software and hardware.

Security involves physical safeguards, procedural control, recover plan and

insurance. It also involves the need to protect the corporate information database, its integrity and accessibility.

The problem of data insecurity may arise from one or a combination of many factors which include:

- a. Lack of formal logging - in mechanism
- b. General laxity on the part of users
- c. Inadequate protection of the system software
- d. Uncorrupted from of information transfer which might lead write-tapping.

4.11 STARTING THE PROGRAM

The program will help auditor keep record of their operations. The program is written in dbase iv. To use this program the dbase IV compiler must be installed after getting into the dbase environment. To run the program the following steps should be followed :-

```
C:\> CD DBASE4 ← (assume Dbase 4
C\> dbase 4\> dbase ← as Dbase directory)
* DO AUDIT
```

The program is then executed and the main menu is activated. The user is prompted to select an option from the main menu.

Main Menu

1. Add Record
2. Edit Record

3. View Record
4. Delete Record
5. Print Record
6. Quit

ADD RECORD:

The add record option provides the user a data entry screen where data can be entered for records to be stored in the database file. The structure of the database file is shown below:

Field Name	Field Type	Width	Dec
Acc-no	Numeric	4	
Type	Character	15	
Date	Date	8	
Remark	Character	30	
Audit	Numeric	11	2
Company	Character	20	

EDIT RECORRD

The edit option is necessary for modification of already existing records. The account number is requested and when supplied the appropriated record is located in the database file and the user is allowed to make amendments.

VIEW RECORD

The view record option is used to display the content of a particular record.

The account number is used to identify the record to be viewed.

DELETE RECORD

As the name implies, this option is used to remove unwanted records from the database file.

The user is prompted if he is certain of the operation or not before such removal (deletion) is performed.

PRINT REPORT

The print report option is used to generate a list of records in the database file. This list is generated to a file "AUDIT. OUT" which can then be printed.

CHAPTER FIVE

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 SUMMARY

Auditing is a process of examining information with the intent of establishing its reliability. The process is usually performed by someone other than the one who prepared such information.

The purpose of audit is to examine Internal Controls and ascertain the accuracy of examining business data, safeguard the organisation assets against fraud, embezzlement and theft. Internal Control must also promote operating efficiency, encourage compliance with the existing government policies and procedures.

There are control problems in electronic systems and the auditor should have the requisite knowledge of how to use computers and carry out his audit. "through" the computer as opposed to the system of auditing "around" the computer.

Since many of these accounts are already in electronic state, the auditor must be knowledgeable to know how these data have been stored, the processing details and relevant controls that should be installed in the system.

Indeed, every large organization due to the complexity of their operations, there is need for control of performance and accountability.

The main purpose of auditing is to ensure that the organization achieves its set objectives at a minimum cost and in accordance with laid down rules and regulations of management and the standard accounting practice.

The implementation of the new system will enhance efficiency. As manual systems are replaced by computer systems, it is important to identify control problems and look for solutions. Auditors must have a greater understanding both of the concepts of control in a data processing environment and the basic technology of computers.

Data processing of information system is now a critical part of the organization's basic structure. Auditors should ensure that:-

1. Effective controls are designed into the System.
2. There is adequate audit involvement in the design process to help ensure that appropriate controls are implemented.
3. Proper funding to be provided by the organization since the benefits to be derived from the use of computers far outweighs the cost.

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```

SET TALK OFF
SET ESCAPE OFF
SET BELL OFF
SET SAFETY OFF
SET STATUS OFF
SET SCOREBOARD OFF
USE BANK
STORE 0 TO R
DO WHILE .T.
  R = 0
  @1,1 TO 20,70 DOUB
  @2,15 SAY "**** MAIN SYSTEM MENU ****"
  @4,10 SAY "ADD RECORD           [1]"
  @6,10 SAY "EDIT RECORD            [2]"
  @8,10 SAY "VIEW RECORD           [3]"
  @10,10 SAY "DELETE RECORD          [4]"
  @12,10 SAY "PRINT REPORTS         [5]"
  @14,10 SAY "QUIT                   [6]"
  @17,8 TO 19,55
  @18,17 SAY "ENTER YOUR CHOICE [ ]"
  @18,45 GET R PICT "9" RANGE 1,6
  READ

```

```

  DO CASE
    CASE R = 1
      DO ADD
    CASE R = 2
      DO EDIT
    CASE R = 3
      DO VIEW
    CASE R = 4
      DO DELETE
    CASE R = 5
      DO REPORT
    CASE R = 6
      EXIT

```

```

  ENDCASE

```

```

ENDDO

```

```

PROCEDURE ADD

```

```

USE AUDIT

```

```

CLEAR

```

```

DO WHILE .T.

```

```

  STORE 0 TO MACC_NO, MAUDIT

```

```

  STORE SPACE(15) TO MTYPE

```

```

  STORE SPACE(30) TO MREMARK

```

```

  STORE SPACE(20) TO MCOMPANY

```

```

  STORE CTOD(" / / ") TO MDATE

```

```

  @1,23 SAY "DATA ENTRY PROGRAM"

```

```

  @2,23 SAY "===== "

```

```

  @4,4 SAY "ACCOUNT NUMBER : "

```

```

  @4,45 GET MACC_NO PICT "9999"

```

```

  @8,4 SAY "COMPANY : "

```

```

  @8,45 GET MCOMPANY

```

```

  @10,4 SAY "ACCOUNT DESCRIPTION : "

```

```

  @10,45 GET MTYPE

```

```

  @12,4 SAY "DATE AUDITED : "

```

```

  @12,45 GET MDATE

```

```

  @14,4 SAY "REMARK : "

```

```

  @14,45 GET MREMARK

```

```

  @16,4 SAY "AUDITED AMOUNT : "

```

```

@16,45 GET MAUDIT PICT "99999999.99"
READ
S = .T.
@22,15 SAY "SAVE RECORD (Y/N) ? " GET S PICT "Y"
READ
IF S
APPEND BLANK
REPL ACC_NO WITH MACC_NO
REPL TYPE WITH MTYPE
REPL DATE WITH MDATE
REPL REMARK WITH MREMARK
REPL AUDIT WITH MAUDIT
REPL COMPANY WITH MCOMPANY
ELSE
@22,0
WAIT " RECORD NOT SAVED, PRESS ANY KEY ....."
CLEAR
ENDIF
MORE = .T.
@22,0
@22,15 SAY "ADD MORE RECORD (Y/N) ? " GET MORE PICT "Y"
READ
IF MORE
CLEAR
LOOP
ELSE
CLEAR
EXIT
ENDIF
ENDDO
RETURN

```

```

PROCEDURE EDIT
SET TALK OFF
SET ESCAPE OFF
SET BELL OFF
SET SAFETY OFF
SET STATUS OFF
SET SCOREBOARD OFF
USE AUDIT
CLEAR
DO WHILE .T.
STORE 0 TO MACC_NO, MAUDIT
STORE SPACE(15) TO MTYPE
STORE SPACE(30) TO MREMARK
STORE CTOD(" / / ") TO MDATE
@1,10 SAY: "ACCOUNT NUMBER TO EDIT " GET MACC_NO PICT "9999"
READ
IF MACC_NO = 0
CLEAR
RETURN
ENDIF
LOCATE FOR ACC_NO = MACC_NO
IF .NOT. FOUND()
WAIT "***** RECORD NOT FOUND, PRESS ANY KEY *****"
CLEAR
LOOP
ENDIF
MACC_NO = ACC_NO
MTYPE = TYPE

```

```

MDATE = DATE
MREMARK = REMARK
MAUDIT = AUDIT
MCOMPANY = COMPANY
@1,0
@1,23 SAY "DATA EDIT PROGRAM"
@2,23 SAY "===== "
@4,4 SAY "ACCOUNT NUMBER : "
@4,45 GET MACC_NO PICT "9999"
@8,4 SAY "COMPANY : "
@8,45 GET MCOMPANY
@10,4 SAY "ACCOUNT DESCRIPTION : "
@10,45 GET MTYPE
@12,4 SAY "DATE AUDITED : "
@12,45 GET MDATE
@14,4 SAY "REMARK : "
@14,45 GET MREMARK
@16,4 SAY "AUDITED AMOUNT : "
@16,45 GET MAUDIT PICT "99999999.99"
READ
S = .T.
@22,4 SAY "SAVE EDITED RECORD (Y/N) ? " GET S PICT "Y"
READ
IF S
REPL ACC_NO WITH MACC_NO
REPL TYPE WITH MTYPE
REPL DATE WITH MDATE
REPL REMARK WITH MREMARK
REPL AUDIT WITH MAUDIT
REPL COMPANY WITH MCOMPANY
ELSE
@22,0
WAIT " RECORD NOT SAVED, PRESS ANY KEY ....."
CLEAR
ENDIF
MORE = .T.
@22,0
@22,10 SAY "EDIT MORE RECORD (Y/N) ? " GET MORE PICT "Y"
READ
IF MORE
CLEAR
LOOP
ELSE
CLEAR
EXIT
ENDIF
NDDO
RETURN

```

```

PROCEDURE DELETE
T TALK OFF
T ESCAPE OFF
T BELL OFF
I SAFETY OFF
I STATUS OFF
I SCOREBOARD OFF
E AUDIT
IAR
WHILE .T.

```

```

STORE 0 TO MACC_NO, MAUDIT
STORE SPACE(15) TO MTYPE
STORE SPACE(30) TO MREMARK
STORE CTOD(" / / ") TO MDATE
@1,10 SAY "ACCOUNT NUMBER TO DELETE " GET MACC_NO PICT "9999"
READ
LOCATE FOR ACC_NO = MACC_NO
IF .NOT. FOUND()
    WAIT "***** RECORD NOT FOUND, PRESS ANY KEY *****"
    CLEAR
    LOOP
ENDIF
MACC_NO = ACC_NO
MTYPE = TYPE
MDATE = DATE
MREMARK = REMARK
MAUDIT = AUDIT
MCOMPANY = COMPANY
@1,0
@1,23 SAY "DATA DELETE PROGRAM"
@2,23 SAY "===== "
@4,4 SAY "ACCOUNT NUMBER : "
@4,45 GET MACC_NO PICT "9999"
@8,4 SAY "COMPANY : "
@8,45 GET MCOMPANY
@10,4 SAY "ACCOUNT DESCRIPTION : "
@10,45 GET MTYPE
@12,4 SAY "DATE AUDITED : "
@12,45 GET MDATE
@14,4 SAY "REMARK : "
@14,45 GET MREMARK
@16,4 SAY "AUDITED AMOUNT : "
@16,45 GET MAUDIT PICT "99999999.99"
S = .T.
@22,4 SAY "DELETE THIS RECORD (Y/N) ? " GET S PICT "Y"
READ
IF S
    DELETE
    PACK
ELSE
@22,0
WAIT " RECORD NOT DELETED, PRESS ANY KEY ....."
CLEAR
ENDIF
MORE = .T.
@22,0
@22,10 SAY "DELETE MORE RECORD (Y/N) ? " GET MORE PICT "Y"
READ
IF MORE
    CLEAR
    LOOP
ELSE
    CLEAR
    EXIT
ENDIF
NDDO
ETURN

PROCEDURE VIEW
SE AUDIT

```



```

CLEAR
DO WHILE .T.
STORE 0 TO MACC_NO, MAUDIT
STORE SPACE(15) TO MTYPE
STORE SPACE(30) TO MREMARK
STORE CTOD(" / / ") TO MDATE
@1,10 SAY "ACCOUNT NUMBER TO VIEW " GET MACC_NO PICT "9999"
READ
LOCATE FOR ACC_NO = MACC_NO
IF .NOT. FOUND()
    WAIT "***** RECORD NOT FOUND, PRESS ANY KEY *****"
    CLEAR
    LOOP
ENDIF
MACC_NO = ACC_NO
MTYPE = TYPE
MDATE = DATE
MREMARK = REMARK
MAUDIT = AUDIT
MCOMPANY = COMPANY
@1,0
@1,23 SAY "DATA VIEW PROGRAM"
@2,23 SAY "===== "
@4,4 SAY "ACCOUNT NUMBER : "
@4,45 GET MACC_NO PICT "9999"
@8,4 SAY "COMPANY : "
@8,45 GET MCOMPANY
@10,4 SAY "ACCOUNT DESCRIPTION : "
@10,45 GET MTYPE
@12,4 SAY "DATE AUDITED : "
@12,45 GET MDATE
@14,4 SAY "REMARK : "
@14,45 GET MREMARK
@16,4 SAY "AUDITED AMOUNT : "
@16,45 GET MAUDIT PICT "99999999.99"
MORE = .T.
@22,0
@22,10 SAY "VIEW MORE RECORD (Y/N) ? " GET MORE PICT "Y"
READ
IF MORE
    CLEAR
    LOOP
ELSE
    CLEAR
    EXIT
ENDIF
ENDDO
RETURN

```

```

PROCEDURE REPORT
SET TALK OFF
SET ESCAPE OFF
SET BELL OFF
SET SAFETY OFF
SET STATUS OFF
SET SCOREBOARD OFF
SET DEVICE TO FILE "AUDIT.TXT"
JSE AUDIT
CLEAR

```

```
STORE 1 TO S,L
DO WHILE .NOT. EOF()
IF L = 1
@1,40 SAY "SUMMARY OF AUDITED ACCOUNTS"
@2,40 SAY "*****"
@4,1 SAY REPL("=",105)
@5,5 SAY "ACCOUNT"
@5,15 SAY "ACCOUNT"
@5,68 SAY "AUDITED"

@6,1 SAY "S/N"
@6,5 SAY "NUMBER"
@6,13 SAY "DESCRIPTION"
@6,37 SAY "COMPANY NAME "
@6,55 SAY "DATE"
@6,68 SAY "AMOUNT"
@6,86 SAY "REMARK"
@7,1 SAY REPL("=",105)
L = 8
ENDIF
@L,1 SAY STR(S,3)
@L,6 SAY ACC_NO
@L,13 SAY TYPE
@L,31 SAY COMPANY
@L,54 SAY DATE
@L,66 SAY AUDIT
@L,79 SAY REMARK
L = L+1
@L,1 SAY REPL("-",105)
SKIP
L = L+1
S = S+1
IF L = 50
EJECT
L = 8
ENDIF
F EOF()
EXIT
ENDIF
JDDO
WAIT ""
WRITE DEVICE TO SCREEN
LEAVE
TURN
```

SUMMARY OF AUDITED ACCOUNTS

ACCOUNT S/N	ACCOUNT NUMBER	ACCOUNT DESCRIPTION	COMPANY NAME	DATE	AUDITED AMOUNT	REMARK
1	1111	LEDGER	PORTLAND CEMENT	10/10/99	688832.00	CORRECTLY BALANCED
2	4323	DAILY TRANSACT	HABIB BANK	10/11/99	563455.00	ACCOUNT NOT BALANCED
3	5434	TRANSPORTATION	OB & SONS NIG. LTD.	10/22/99	65345.00	MISSING RECIEPTS
4	8756	EXPENSES	FOTO PALACE	10/23/99	5776532.42	BALANCED
5	6523	EXPENSES	BLAISE FURNITURES	11/02/99	676577.00	BALANCED
6	4566	INCOME	HABIB BANK	11/03/99	676656.00	BALANCED